

FLIGHT

The
**AIRCRAFT
ENGINEER
&
AIRSHIPS**

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Founder and Editor : **STANLEY SPOONER**

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EDITORIAL COMMENT



THE statement which has appeared recently that Sir Alan Cobham has, on behalf of the Cobham-Blackburn Air Lines, Ltd., been requested to prepare and present an estimate of the cost of running an air line between Alexandria in Egypt and Kisumu in Kenya is to be warmly welcomed, and it is to be hoped that something concrete will materialise once that estimate has been submitted to the Air Ministry and carefully examined. The warning given in a recent issue of *The Times* as to the urgent need for haste if Great Britain is not to lose her chance of establishing an all-red air route from Egypt to Capetown is timely and in no way exaggerated. Moreover, much the same arguments apply to other Imperial air routes, and it really is highest time that a thorough re-consideration of the whole problem be given.

Empire Aviation

As we see it, the position is broadly as follows: Civil aviation in the various parts of the Empire is progressing as well as might be expected; excellently in some, not quite so well in others, but on the whole not unreasonably, having regard to all points of view. But the great stumbling-block seems to us to be the linking up of the various sections. In some instances the difficulties are geographical and climatic. In others political. The fact remains, however, that England, situated as she is in a corner of the map of Europe, is unfavourably placed, and that before we can begin to talk of all-red air routes from London to distant parts of the Empire, it is absolutely essential for us to develop aircraft capable of covering fairly long stages. Only in that way may we become independent of the countries over which such air lines would of necessity have to operate. It is this very fact, we believe, which has caused the Air Ministry to revive our airship policy, the view being held that the airship more than any heavier-than-air craft is likely to give the solution to the problems of covering, economically, what we may, perhaps, be forgiven for terming the "missing links" in our chains of Empire air routes.

" FLIGHT " PHOTOGRAPHS

To those desirous of obtaining copies of "Flight" Photographs, these can be supplied, enlarged or otherwise, upon application to Photo. Department, 36, Great Queen Street, W.C.2.

DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1928

Aug. 4 Close of Philadelphia Bulletin Atlantic Flight Prize

Aug. 27-31 U.S. National Baby 'Plane Meeting, Milwaukee

Oct. 7-28 International Aircraft Exhibition, Berlin

Oct. 8 Aero Golfing Soc.—Team Match v. Stage G.C.

Oct. 24 Aero Golfing Soc.—"Cillon" Challenge Cup

1929

Oct. 31 Guggenheim Safe-Aircraft Competition Closes

The airship is, however, still a somewhat untried quantity, and it is admitted that the construction of the new large airships is an experiment, although one which appears sufficiently promising to be worth making. In the meantime can it truthfully be said that any serious effort has been made Imperially to encourage the production of heavier-than-air craft which might give an alternative solution? We think the answer must be in the negative. Let us suppose that the airships prove a failure. (We do not think they will, but let it be supposed for the moment). Are we to wait until then before beginning in real earnest to develop the heavier-than-air Empire types? If we do, we shall unquestionably be left behind in the race.

During the debate in the House recently, on the vote for £415,000 for civil aviation, Sir Samuel Hoare referred to these problems in a general way, and he made the interesting statement that we had now got to a point where we could say clearly that, after possibly two or three more changes from the present types of machines, the machines would be covering expenses and civil aviation would be actually self supporting. As an expression of a pious hope this view may be shared by everyone. As a statement of fact, however, we very much doubt whether the outlook is as bright as the Secretary of State would have us believe. When one comes to examine the position it is found that, with the exception of the Short "Calcutta-Jupiter" flying-boat, no new type of aircraft has been produced for use by Imperial Airways for some years. No concrete example of machines to supersede the "Argosies" on the European air routes has made its appearance. Doubtless the "Argosies" are doing very well, but no one would argue, least of all the designers of that machine, that a more efficient type could not be produced, *were the encouragement to do so forthcoming.*

The fact of the matter is that, under present conditions, it is definitely not worth while for an aircraft firm engaged on the production of military types for the R.A.F. to spend time and money on producing new and efficient commercial types. Many thousands of pounds might be spent on designing and producing the first machine and testing it. The ordinary work of building service types would be interfered with, and the possible reward, as far as the Government is concerned, might be an order for two or three machines. Even with the new basis to which the Air Minister has referred, on which a more rapid obsolescence rate is contemplated, it might be two years or more before new types were ordered. It is not difficult to see why aircraft firms are not falling over each other in an endeavour to produce new commercial aircraft types.

For many years it has been the view of FLIGHT that the Imperial Airways services from Croydon should be the testing ground for new aircraft types, and that this should be their primary function. Hitherto there has been little evidence that this

policy is being followed and unless and until real encouragement is given to constructors to produce improved types, we shall merely be marking time while foreign competitors are forging ahead.

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The Orly Meeting

In this issue of FLIGHT we publish the rules governing the International Light Plane competition which is being held at Orly, near Paris, from September 10-21. The meeting should be an interesting one, and we hope that a large number of British light planes will be entered. The rules are such that our types of two-seater should do very well in the competition.

At first sight it might be thought that in the "Efficiency" tests, machines like the little Klemm-Daimler, with its 20 h.p. engine, would score many more points than, for instance a "Moth." These tests are flown to a formula $\frac{P \times V}{C}$, in which P is

the useful load carried, V the speed around the 400 km. circuit, and C the weight of fuel and oil consumed for the circuit. The official regulations are rather vague in one or two respects, and it is not, for instance, quite clear whether the pilot counts as useful load or not. Assuming that he does, the Klemm-Daimler would presumably carry pilot and passenger, giving a value of P of 150 kg. It may be assumed that the machine will do an average speed around the course of about 95 km./h., which we will take as the value of V. The fuel and oil consumed during the 4½ hrs. which, at this speed, the machine would take to cover the circuit, would probably be somewhere in the neighbourhood of 25 kg., and the number of marks scored would, on these assumptions, be $\frac{150 \times 95}{25} = 570$.

Assuming that the "Moth" would carry a greater useful load, say 175 kg., and would cover the circuit at 100 m.p.h. (161 km./h.), while consuming 45 kg. of fuel and oil, the marks scored by the "Moth" would then be $\frac{175 \times 161}{45} = 627$. So that, even in

the "efficiency" test, it would appear that a typical British light plane might do better than a machine of ultra low power. In the take-off test the little Klemm-Daimler might do better than the "Moth." For instance, at the Rotterdam meeting the Klemm-Daimler left the ground in 45.3 metres while Lady Heath's "Moth" took 63.7 metres. The difference in the number of marks scored under the French regulations would, however, not be great.

In the climbing test there can be no doubt that the "Moth" would be superior, since although the *angle* of climb of the Klemm-Daimler is excellent, the *rate* of climb is not spectacular.

On the whole we believe that British light planes would do well, and we hope to see a large number of them at Orly, especially as there is no other meeting being held at that time to interfere.

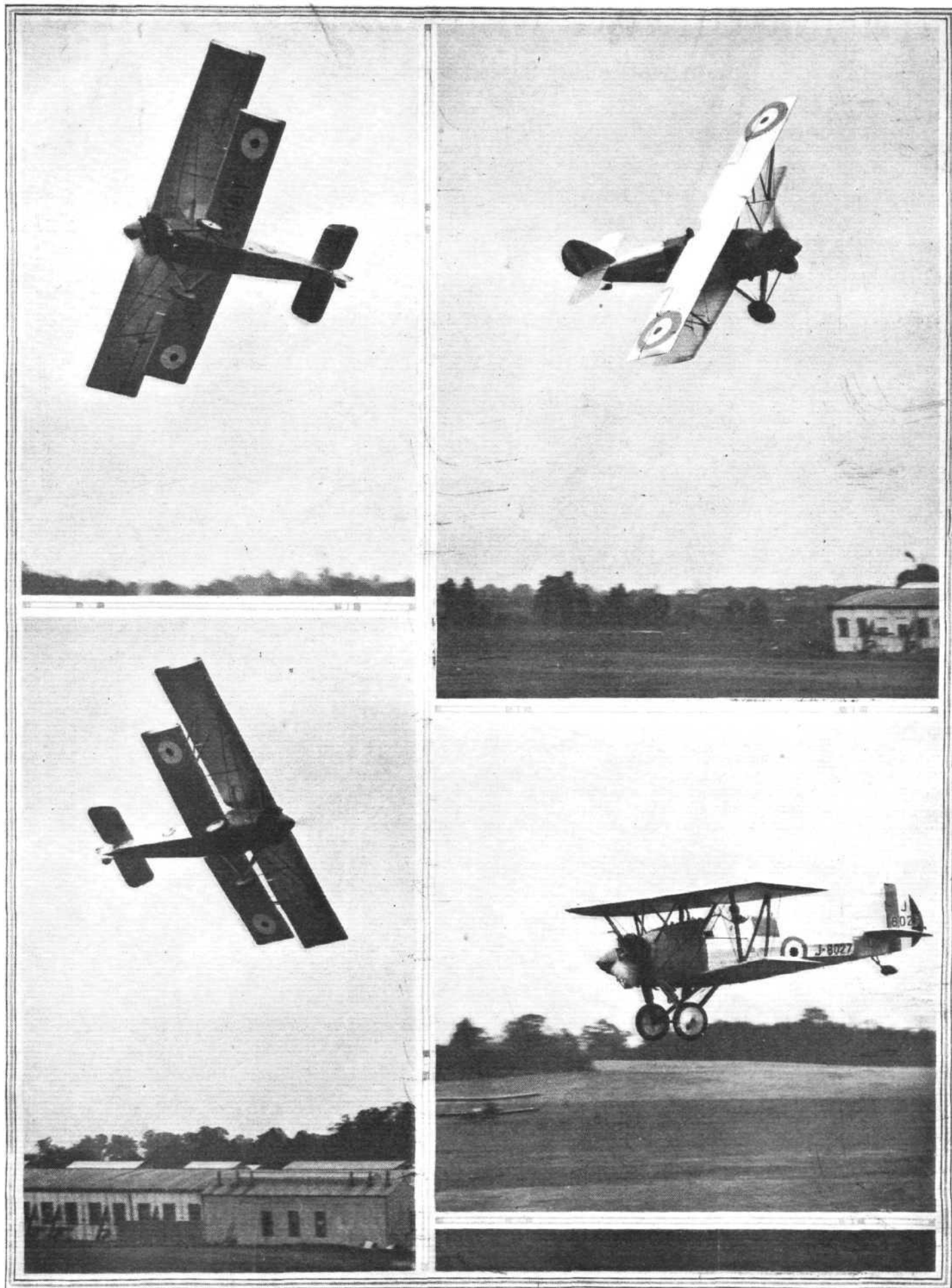


Busk Studentship in Aeronautics

THE Trustees of this studentship, founded in memory of Edward Teshmaker Busk, who lost his life in 1914 whilst flying an experimental aeroplane, have awarded the studentship for the year 1928-29 to Mr. John Joseph Green, B.Sc., of the Royal College of Science, London.

The Portslade (Brighton) Aerodrome and Motor Track

IN spite of considerable opposition from various quarters, the Brighton Town Council has approved (by 40 votes to 16) the scheme to lease some land for the proposed aerodrome and motor track at Portslade—to which we have made frequent reference in FLIGHT.



["FLIGHT" Photographs

THE ARMSTRONG-WHITWORTH "STARLING" SINGLE-SEATER FIGHTER : The machine in various attitudes of flight, piloted by Mr. Campbell Orde,

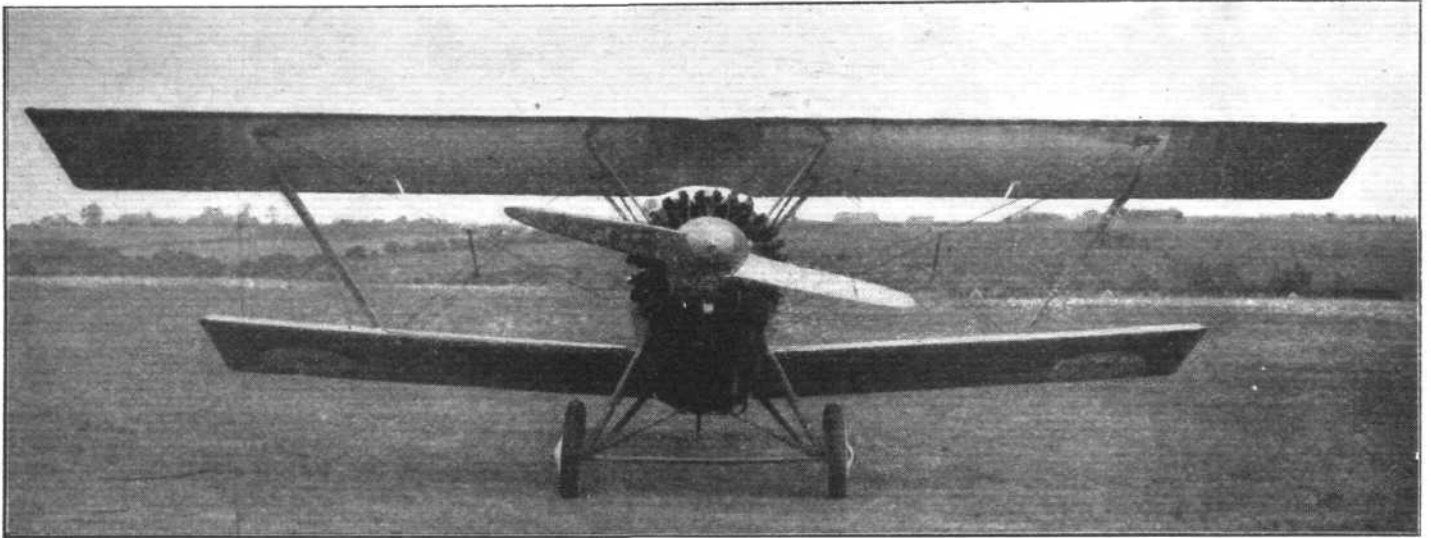
THE ARMSTRONG WHITWORTH "STARLING"

Armstrong-Siddeley Supercharged "Jaguar" Engine

AMONG the batch of single-seater fighters recently produced, the Armstrong-Whitworth "Starling" is of particular interest not only on account of its general aerodynamic design but also because of its all-metal construction, a type of aircraft construction in which Sir W. G. Armstrong Whitworth Aircraft, Ltd., have specialised for a considerable time,

day fighter, *i.e.*, without the collector ring commonly used on night fighters to prevent the open exhaust being seen in the dark.

In general design the "Starling" resembles previous types of Armstrong Whitworth machines, such as the "Siskin" and "Atlas." That is to say, one would identify the machine



["FLIGHT" Photograph]

THE ARMSTRONG WHITWORTH "STARLING": Front View. Note the pronounced rake of the inter-plane struts. The engine is a supercharged Armstrong-Siddeley "Jaguar."

and one form of which has become extremely well known in the "Siskin," of which large numbers have been and are being built for the British Royal Air Force.

The "Starling" has been designed for use not only as a day fighter but also as a night fighter, being equipped with the usual navigation lights, Holt flares, etc., although in our photographs it is shown with the short exhaust pipes of the

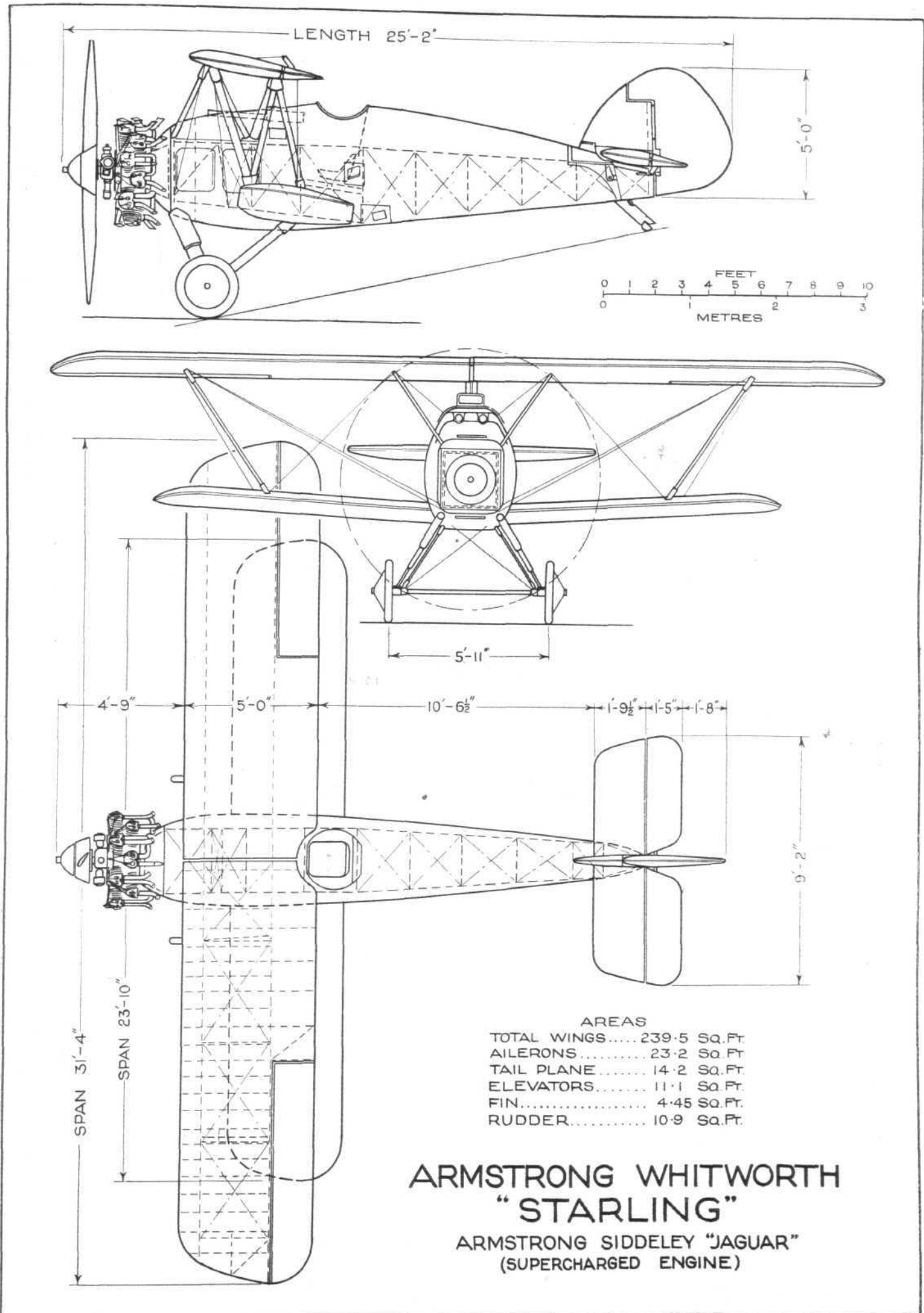
as an Armstrong Whitworth anywhere, although a closer inspection at once reveals considerable differences. Of the "sesquiplane" type, which chiefly the "Siskin" has made familiar in this country, the "Starling" is characterised by a large top plane and a much smaller bottom plane, with the interplane struts raked at a pronounced angle.

The wing section employed is a biconvex one, and more



["FLIGHT" Photograph]

THE ARMSTRONG-WHITWORTH "STARLING": Side View. Owing to the raised position of the pilot, the large angle of incidence of the top plane, and the absence of a cabane, the view is particularly good.



THE ARMSTRONG-WHITWORTH "STARLING": General arrangement drawings to scale.

particularly that known as R.A.F. 30, which is symmetrical, *i.e.*, without centre-line camber. In the design of the machine advantage has been taken of this fact by placing the top plane at a larger angle of incidence to the centre line than is usually found. This was desirable in order to get a large angle with the tail skid on the ground, the angle of no lift of the symmetrical wing section, of course, being at 0° incidence. But in placing the top plane at this large angle the pilot's view is at the same time improved, as his eyes are approximately level with the centre-line of the section, so that he can look both above and below the wing. Added to this is the fact that although the top plane is built in two halves, there is not the usual *cabane* for the support of the wing roots, the upper wings being supported from the body by outwardly-raked struts. This absence of a *cabane* also slightly improves the view, while the slight sagging of the fabric covering over the centre-line joints in the top spars has the effect of slightly reducing the wing thickness, thus again improving the view.

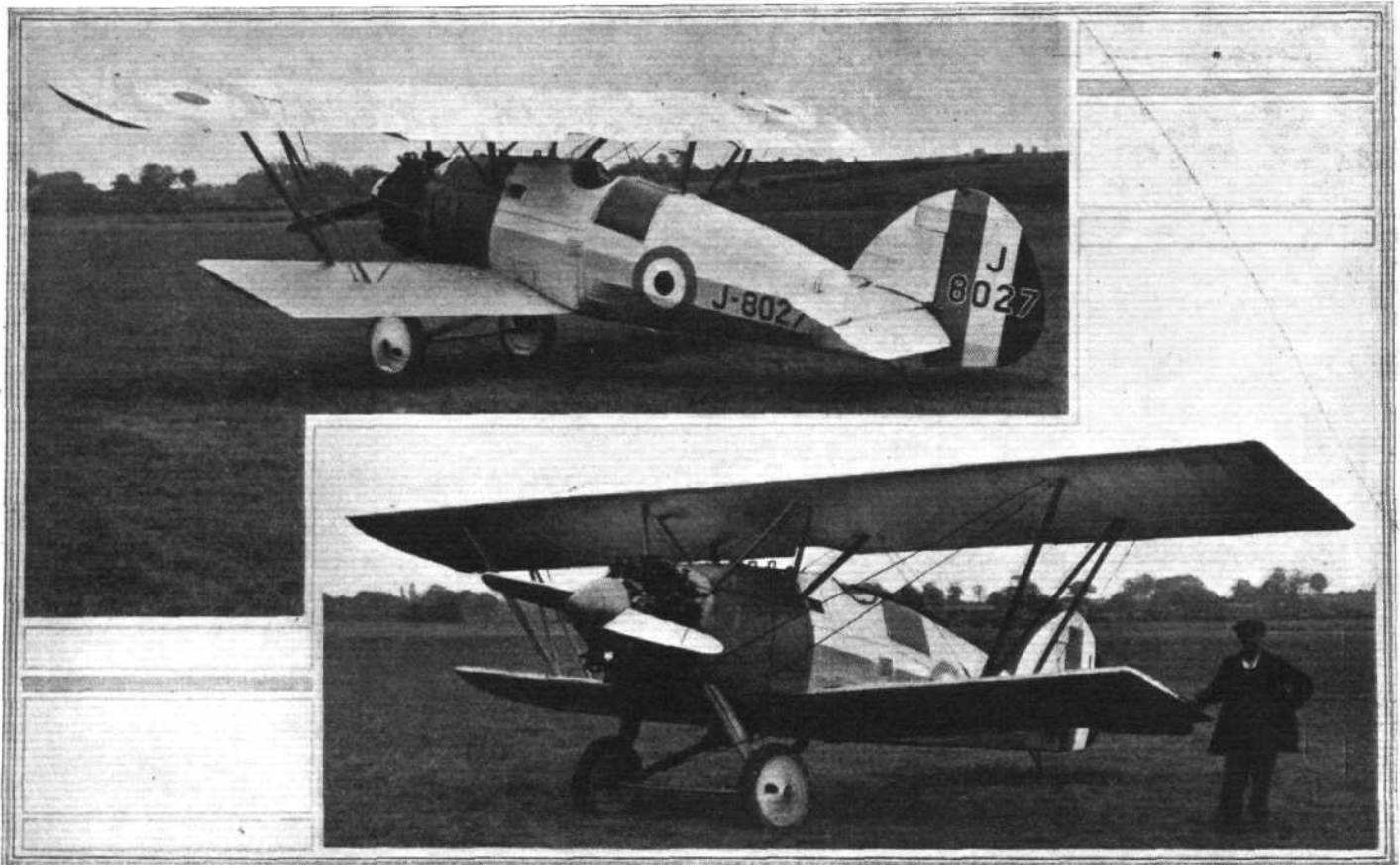
Although a structural rather than an aerodynamic feature, reference may be made here to the somewhat unusual form of

at $VL = 100$), but the section appears for some reason to be subject to considerable scale effect, so that the full scale lift coefficient of the "Starling" is in the neighbourhood of 0.6, which enables this section to be used for a reasonably heavy wing loading without the landing speed becoming unduly high. The minimum drag is low, the section thus being suitable for a wide speed range.

Constructional Features

Mention has already been made of the fact that the "Starling" is of all-metal construction. This is not strictly true, since the wing ribs are of wood. With that one exception, however, the machine is built entirely of metal as regards its structural parts, although the covering is in the form of doped fabric.

The fuselage, like the wings, is of steel construction, but whereas the wing spars are built up from rolled and drawn strip, the fuselage members are in the form of circular-section steel tubes. At the fuselage joints the longerons are reinforced with tubular sleeves at the points where the



["FLIGHT" Photographs]

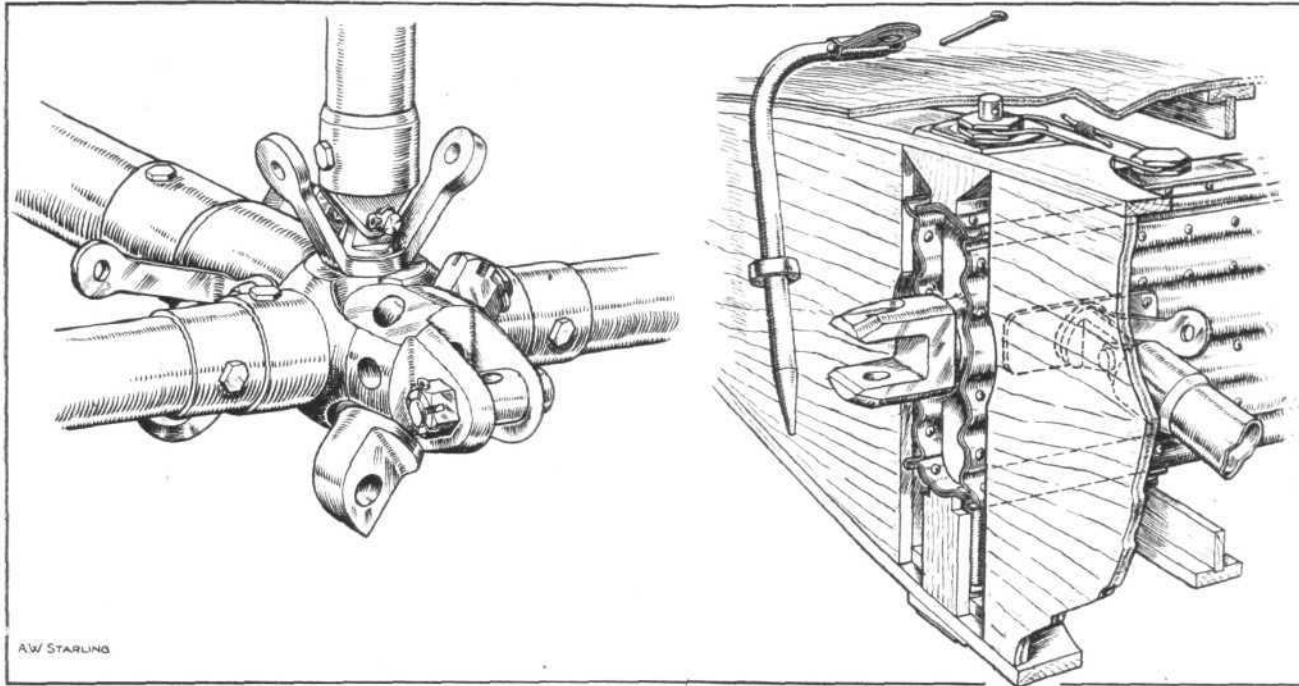
THE ARMSTRONG-WHITWORTH "STARLING": Three-quarter front and three-quarter rear views. The wing bracing is unusual in that both lift wires run to the front spar.

wing bracing employed, and which has been made possible by the use of the symmetrical wing section: the main lift wires, instead of running to front and rear spars, as is usually done, are both taken to a point on the front spar, the rear spar having no lift wire. This arrangement, which at first sight looks a little alarming, has been chosen so as to concentrate as much of the wing strength as possible in the front spar, which is located in a part of the wing section which has ample depth to accommodate it, the rear spar being quite a light affair, and little more than a strong stringer. In the more usual wing section such an arrangement could not well have been used, the travel of the centre of pressure under certain conditions throwing a considerable load on the rear spar. With the RAF 30 section, however, the c.p. is almost stationary, and is, moreover, situated fairly far forward, so that this form of bracing has been rendered possible. Any small loads that may be thrown on the rear spar are transferred to the front bay bracing via the interplane struts, which are of "N" formation.

While discussing the use of R.A.F. 30 with Mr. Lloyd, Armstrong Whitworth's chief designer, a rather interesting point came to light. In the model form, the maximum lift coefficient of this section is not very high (about 0.45 or so

longerons are pierced by the bolts. The sleeves are merely lengths of tubing of a size to slide over the longerons. The general arrangement of a typical "Starling" fuselage joint is shown in one of our sketches. Bracing is by tie rods in the usual way. To the main fuselage structure is added a fairing composed of hoops or formers of channel section to which are riveted stringers made from rolled strip. These also are shown by sketches. The fuselage is built in two main sections, front and rear, bolted together aft of the pilot's seat.

The wing construction takes the form of steel box spars carrying wood ribs, the spars being composed of webs and flanges rolled to corrugated sections from flat strip and riveted together. The wood ribs are held to the spars without any form of fastening, the blocks in front of and behind the bars being so proportioned that a slight pressure on the spar flanges is produced, which is sufficient for locating the ribs. The details of the rib posts and blocks are shown in a sketch, from which it will be seen that posts and blocks are taped together. The front spars are of large dimensions, although even so they do not "fill" the wing section, while the rear spars are, as previously mentioned, relatively small and light. The normal spar flange is a



AW STARLING

["FLIGHT" Sketches

THE ARMSTRONG-WHITWORTH "STARLING": Sketches showing attachment of lower wing to fuselage, the fuselage joint being on the left and the wing root on the right.

single thickness, corrugated for stiffness, but locally, such as at the ends and at the strut attachment points, several laminations are employed, that nearest the main flange being the longest, thus gradually tapering off the thickness of metal. The internal struts of the drag bracing are circular-section steel tubes. The two halves of the top plane are joined together on the centre line by fork-end joints, the small gap left between the two end ribs being covered over with fabric.

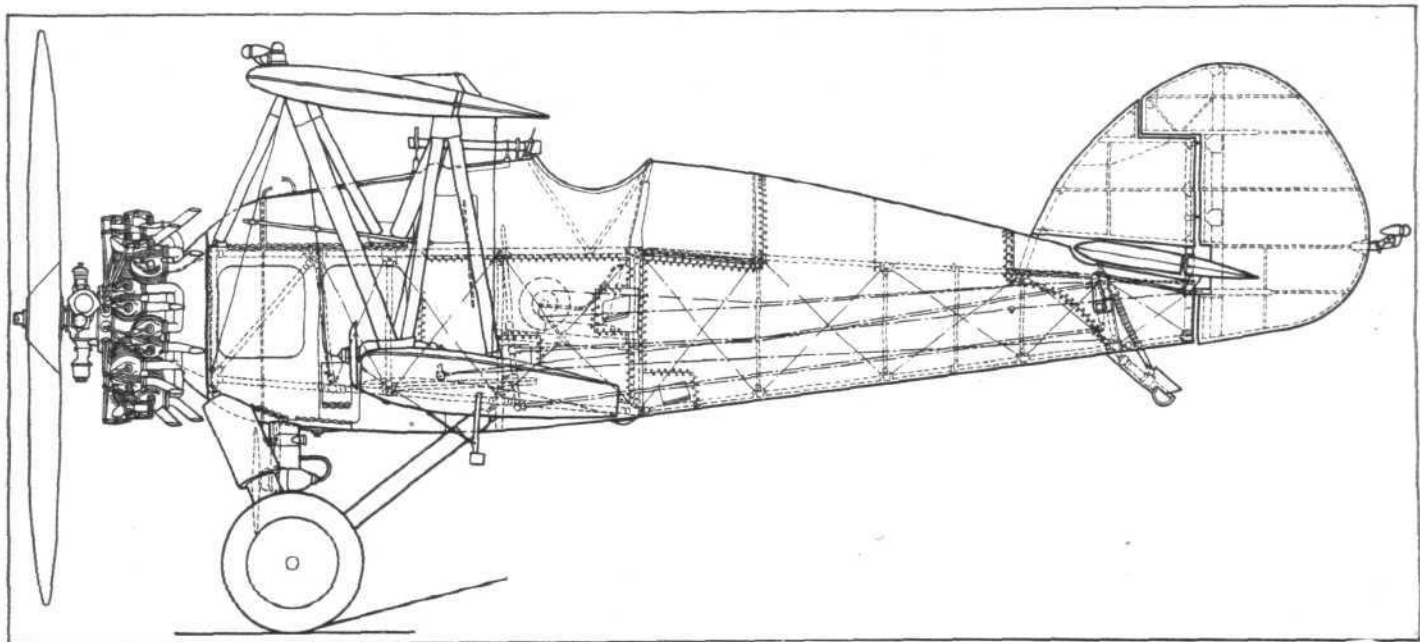
The lower wings are joined to the fuselage longerons in the manner shown by a sketch, the rear undercarriage legs having their points of attachment adjacent to the wing root joints.

The tail surfaces of the "Starling" are partly of tubular and partly of strip construction, fabric covered. The tail plane has a variable incidence gear of the worm type, with the rear spar movable, the trunnions and other details being shown in one of our sketches.

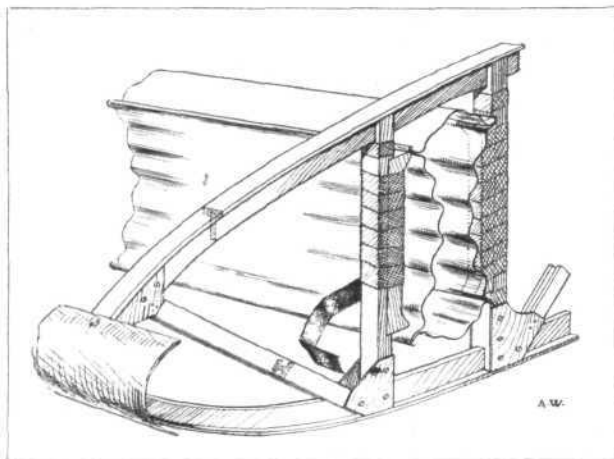
Internal Arrangement

Mention has been made of the fact that the "Starling" was designed both for day and night fighting. Consequently it carries a large equipment, including navigation lights, Holt flares, etc., in addition to the day fighter equipment of wireless, oxygen apparatus, etc., as well, of course, as the usual two machine guns synchronized to fire through the propeller. The guns are mounted on a tubular steel framework, with a quick-thread adjustment for aligning the guns. The latter are accessibly placed inside the fuselage covering, with their mechanism readily within reach for clearing any jams.

The pilot's seat is supported on a system of parallel link movement, with a handle and notched quadrant for raising and lowering the seat. This movement has been made "instinctive," i.e., the pilot depresses the handle to raise himself, but we gather that objection was raised on the grounds that in the extreme position upwards, the handle

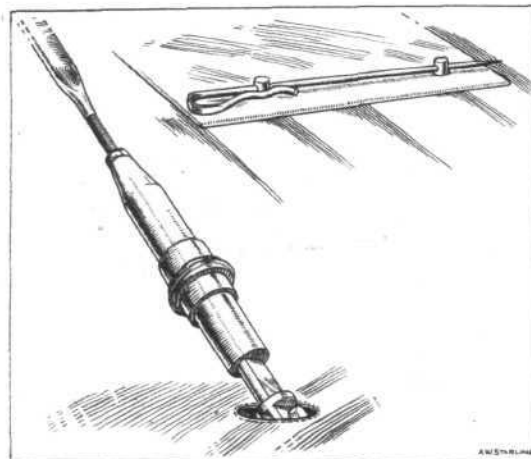


THE ARMSTRONG-WHITWORTH "STARLING": In order to avoid confusion it has been necessary to omit, in this side elevation, a good deal of the equipment, but sufficient detail has been retained to show the main structure. An unusual feature of the machine is that the wing section is a symmetrical one (R.A.F. 30). It should also be noted that the main lift wires both go to the front spar.



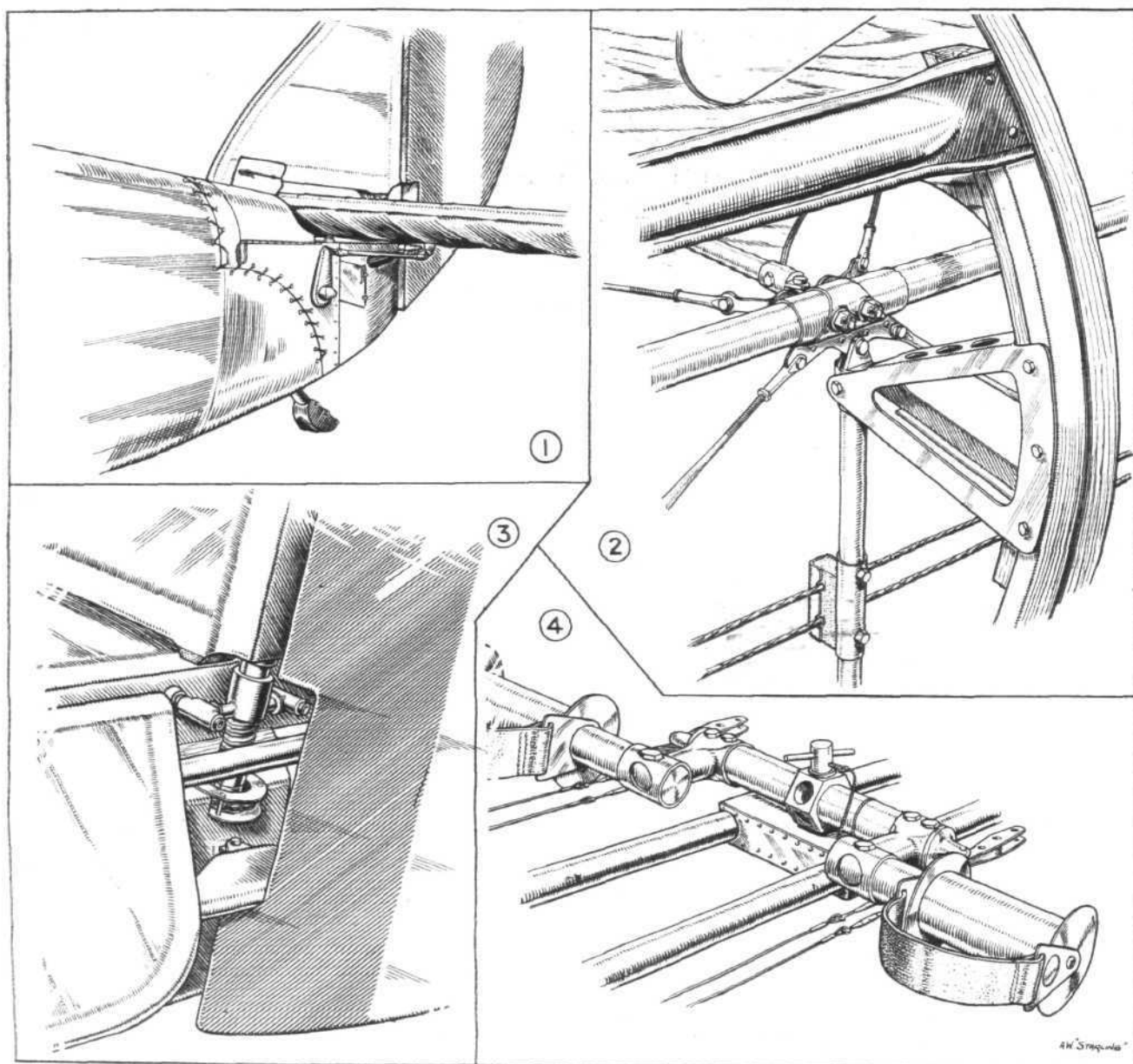
[" FLIGHT " Sketch

The wing ribs of the Armstrong-Whitworth " Starling " are of wood. Their construction is indicated in this sketch, as well as the method of fastening them to the steel spars.



[" FLIGHT " Sketch

THE ARMSTRONG-WHITWORTH " STARLING " : Use is made of an anti-vibration device which prevents the anti-lift wires from going slack. The inset shows a neat type of " skewer " used for the fastening of cowls, inspection doors, etc.



[" FLIGHT " Sketches

THE ARMSTRONG-WHITWORTH " STARLING " : Some constructional details. (1) shows the stern of the fuselage, with elevator controls, tail skid, etc. Details of the fuselage construction are shown in (2). The main structure is tubular, but fairings are added to this, which are in the form of channel section hoops carrying crinkled strip stringers. The trunnion arrangement of the tail for trimming is shown in (3), and the adjustable foot bar in (4). Pivoting in the central hexagonal fitting, the foot bar can be fixed in the position shown, or in the fully forward, or in a number of intermediate positions.

is farthest away. In the next machine, therefore, the movement will be arranged to be in the opposite direction.

As distinct from many single-seater fighters, the petrol tank is placed, in the "Starling," inside the fuselage, and the present installation is slightly complicated by the fact that a greater capacity has been asked for, requiring the addition of an auxiliary tank. The next machine will have the whole fuel supply contained in a single tank.

A very neat tail trimming gear is provided. In order to facilitate the work of trimming the tail it is necessary to have a low "gearing" between the operating wheel and the tail plane spar. But if the wheel has to be turned through more than one revolution for the complete range of tail settings, the difficulty arises that the pilot is uncertain as to the exact angle at which the tail is placed. To overcome this difficulty the designers of the "Starling" have produced a tail trimming wheel incorporating an epicyclic gear arrangement, so that although the wheel is turned through several revolutions, the pointer moves through a few degrees only.



Report on "Ethyl" Petrol

THE Interim Report of the Departmental Committee, which enquired into the possible dangers to health resulting from the use of motor spirit containing lead tetra-ethyl, has now been published (H.M. Stationery Office, price 4d. net). We are unable here to deal at length with the contents of this report, and can only mention that, after setting forth the terms of reference, the constitution of the Committee, etc., and describing the observations and experiments made by the U.S. Government Committee, the report concludes with the following statement:—

"Having very carefully considered the experimental work which has been done in the United States in regard to the use of Ethyl Petrol, and the evidence which we ourselves have taken, and having had the advantage of discussing the matter with Surgeon-General Cumming and Dr. Leake of the United States Public Health Service, we have come to the conclusion that the findings of the United States Government Committee were justified. In our opinion the further experience since that Committee reported has supported their

The Armstrong-Siddeley "Jaguar" fitted in the "Starling" is of the supercharged type for work at great altitudes, and is, needless to say, provided with the usual interrupter gear for the machine guns. A rather neat spinner has been produced, which takes the form of a truncated cone of plywood surrounding the airscrew boss. To the front of this is secured the small metal spinner which just leaves the claws for the Hucks starter free. It has been found that the plywood spinner stands up remarkably well, and its use avoids the annoying cracking which is, unfortunately, only too common with metal spinners.

We regret that the makers of the "Starling" do not wish any detailed weights to be published, nor actual performance figures. It may, however, be stated that the machine carries full service equipment in addition to over 50 gallons of petrol and 5 gallons of oil, and that with full load it is capable of a speed of 150 m.p.h. at 15,000 ft., while the ceiling is approximately 30,000 ft. The landing speed is in the neighbourhood of 50 m.p.h.

conclusion that there were no reasons for prohibiting the use of Ethyl Petrol.

"Although there is no evidence to show that the use of Ethyl Petrol as a motor fuel involves more dangers to health than the use of ordinary petrol, we think, for the time being, the precautions indicated in the Regulations suggested by the United States Committee are desirable. In particular we wish to emphasise the warning that Ethyl Petrol should be used only as a motor fuel and not for such purposes as cooking or cleaning."

"Eagle" Aircraft Cameras for the Argentine

WE are glad to learn that the Williamson Manufacturing Co., Ltd., of Litchfield Gardens, Willesden, have—in the face of international competition—secured a contract from the Argentine Naval Commission for their "Eagle" aircraft cameras and dark room equipment, including the new Williamson Auto-focussing enlarger. The cameras, we understand, will be employed in Fairey III machines and Supermarine "Southampton" flying-boats.



AFRICAN AIR ROUTES

ONE result of Sir Alan Cobham's recent survey flight round Africa is that at the request of the Air Ministry, and on behalf of the Cobham-Blackburn Airlines Ltd., he is at present preparing an estimate for an air line from Alexandria to Kisumu, Kenya Colony, and an estimate for an extension of this line later to Bulawayo, Southern Rhodesia. Details of this air service are not, at the moment, available, but we understand that as far as the financial side of the undertaking is concerned, the various East African dependencies concerned, together with the Colonial Office, have promised to give their support, provided the Imperial Government is prepared to subsidise the route during the early stages of its operation. Apart from this important consideration there is every reason to hope that the scheme will be a success, for not only has all the necessary data for operational purposes been secured, as a result of Sir Alan's personal survey of the route, but he also received offers of valuable assistance, should the service materialise, from various commercial interests.

As at present planned it is to be a weekly service operated with the latest type of three-engined flying-boats—estimates for which have already been presented to British aircraft constructors—capable of a maximum speed of 120 m.p.h., a ceiling of 14,000 ft., and a normal range of 300 miles or an endurance of 4½ miles. For the extension from Kisumu to Bulawayo, land planes will be employed.

Provisionally the fares will be about £95 for the full trip of 3,325 miles (Alexandria-Kisumu) and £50 to Khartoum, while it is expected that the time occupied for the journey will be four days, although later it is possible that this may be lessened.

It is sincerely to be hoped that this scheme will get going without delay, in the interests of Empire Air Routes, otherwise it is possible that Great Britain will find herself entirely "out of the flying" so far as African air routes are concerned. The Aeronautical Correspondent of the *Times* makes the position clear, in a recent issue of that journal when he says:—

"It is not generally realised at home that it is imperative that prompt action should be taken to initiate a purely British route, for there is a danger, if procrastination is permitted much longer, of foreign interests establishing themselves first, and in the end short-circuiting the All-Red route. The Belgians, Sir Alan Cobham stated, have already made proposals to undertake the organisation of an air line from Lake Albert along their frontier down to Elisabethville, near the southern frontier of the Belgian Congo, and from there to fly on to Bulawayo, with the definite intention of attracting all the South African traffic by such a line through their well-established Congo route from Elisabethville to Boma, in the Belgian Congo. This is at present a dead end so far as Europe is concerned, but it must be remembered that the French already fly to Dakar, in Senegal, and have two schemes in mind by which to link up with the Belgian Congo line.

"The more ambitious scheme is to fly straight across the Sahara from the North African coast to the northern border of the Belgian Congo, where the Belgians have in operation a branch line from Leopoldville to Coquilhatville, near the French Middle Congo. If this came into being before British interests had established the first section of the All-Red route to Kisumu it might be very difficult for South Africa to resist joining up with this line at Elisabethville, or for Northern Rhodesia, to refuse her co-operation in such a scheme."

While on the subject of African air routes, we have been asked to state that, in connection with the failure of "African Airways, Ltd.," previously reported in *FLIGHT*, Alan Cobham Aviation Ltd., had an opportunity to tender for the proposed service between Durban and Johannesburg early last year, but the scheme then submitted was not considered to offer any prospect of success. Further, that while Sir Alan Cobham was consulted, during his recent flight, by various officials and directors of African Airways, Ltd., he did not become associated with the scheme.



Parade of Massed Drums.

THE "Mounted Gymkhana and Air Pageant" organised by the Royal Air Force, Halton, last week turned out to be a much more ambitious affair than probably most people had imagined. In point of fact, the pageant was worthy of being classed among the great flying events of the season, and in addition to the flying items there were a number of terrestrial attractions which were extremely interesting and provided a welcome diversion to those of us who have had rather a surfeit of flying this summer.

As was to be expected, the organisation was very good; the various events were run off almost according to schedule, and there were no casualties in spite of the fact that the aerodrome at Halton is not exactly the best in the country.

The programme commenced in the morning with heats for light aeroplanes, of which quite a large number had arrived to take part, including such well-known pilots as Miss O'Brien, Miss Spooner, Capt. Stack, Capt. Broad, and Flt.-Lt. Rose, all on "Moths"; Flt.-Lt. Bonham-Carter on the Parnall "Imp" Mr. Cazalet and "Harold Brooklyn," on "Widgeon," Flt.-Lt. Thorn on the R.A.E. "Avian," and Mr. Bruce on a D.H. 53. Among other aerial visitors was Mr. C. F. Uwins on the Bristol 101.

In the afternoon the first event was an exhibition of individual aerobatics by Flt.-Lts. Arnold and le Poer Trench, on Armstrong-Whitworth "Siskin" 3A's with "Jaguar" engines. This event was followed by a display of drill and manoeuvres in the air by five "Siskins" of No. 41 (Fighter) squadron. The formation was led by Flt.-Lt. G. A. Bouchier, D.F.C. An air combat between Flt.-Lts. le Poer Trench and L. O. Brown, both on "Siskins," followed next,

after which a little comic relief was supplied by "Air Marshal Sandbags," who descended upon the locality by parachute. The "pre-tea time" programme, as far as flying events were concerned, concluded with a light 'plane race for lady pilots, for a challenge cup and prizes presented by Sir Charles Wakefield.

After tea there was another light 'plane race, open to members of light 'plane clubs and to private owners. This was for a challenge cup presented by Mr. De Fraine and prizes presented by Sir Charles Wakefield. One of our photographs shows the finish of this race, and from this it will be seen that the finish was a close one, thanks once more to the almost uncanny skill of Captains Goodman Crouch and Dancy.

A competition entitled "Aerial Tennis," in which aeroplanes, pilots, ladies and horsemen figured, was less amusing than might have been expected. On the other hand, the demonstrations given by Capt. Broad on a "Gipsy Moth," and Capt. Stack on a "Cirrus Moth" were very spectacular, but in the hands of such expert pilots it was a little difficult to know exactly how much was due to slots and how much to "hands."

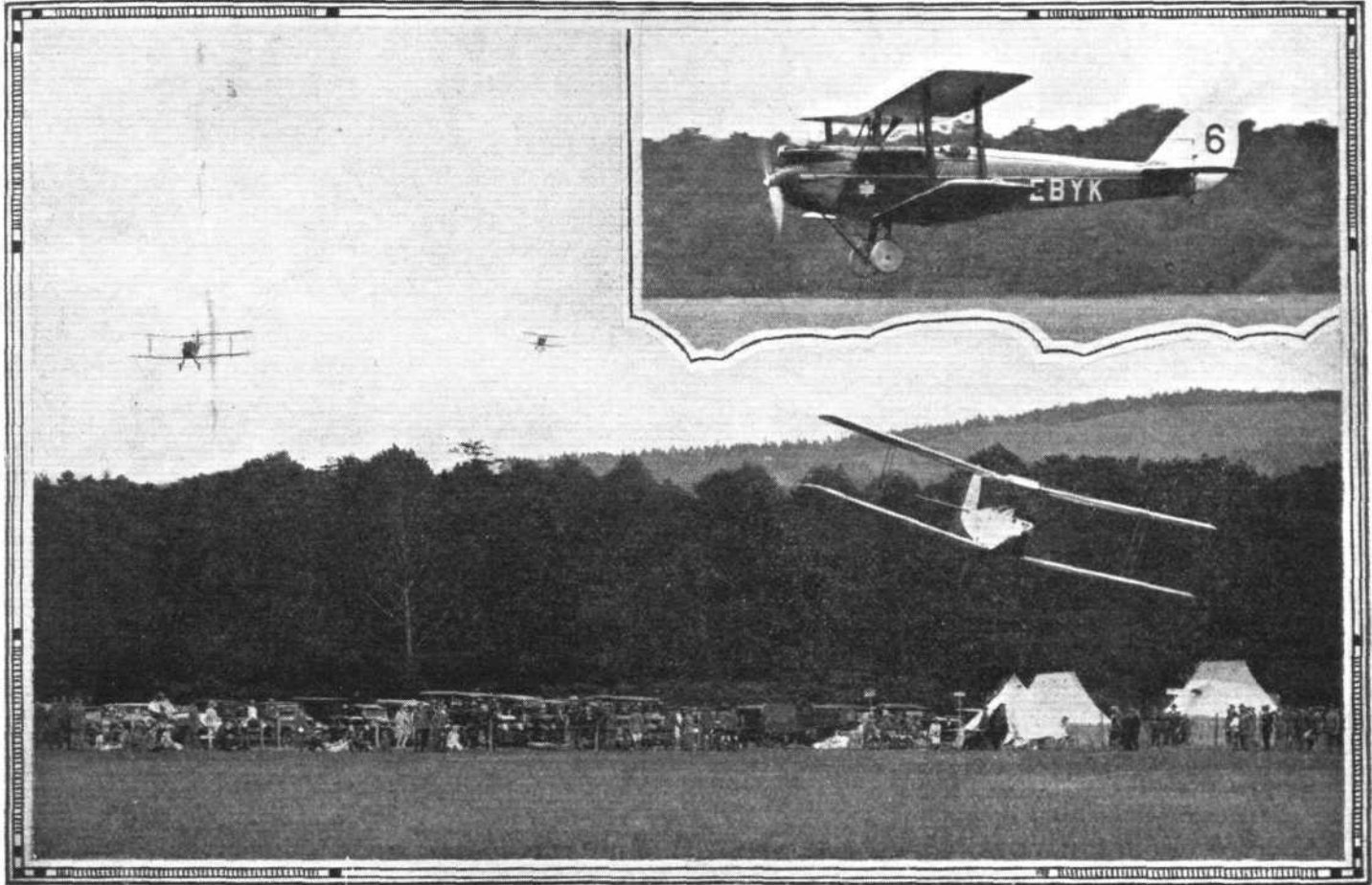
Once more No. 41 (Fighter) squadron contributed an item, in which Flight-Lieut. F. K. Damant, D.F.C., and Flying-Officer C. S. Staniland gave a display of highly advanced individual aerobatics on "Siskins."

The last flying event on the programme was the destruction by aircraft of a desert stronghold. In this a "hostile native tribe" (what *should* we do without "hostile native tribes"?) was known to have taken refuge. Owing to the nature of the



THE HALTON PAGEANT: Line-up of service machines and visitors' (civil) machines.

["FLIGHT" Photographs



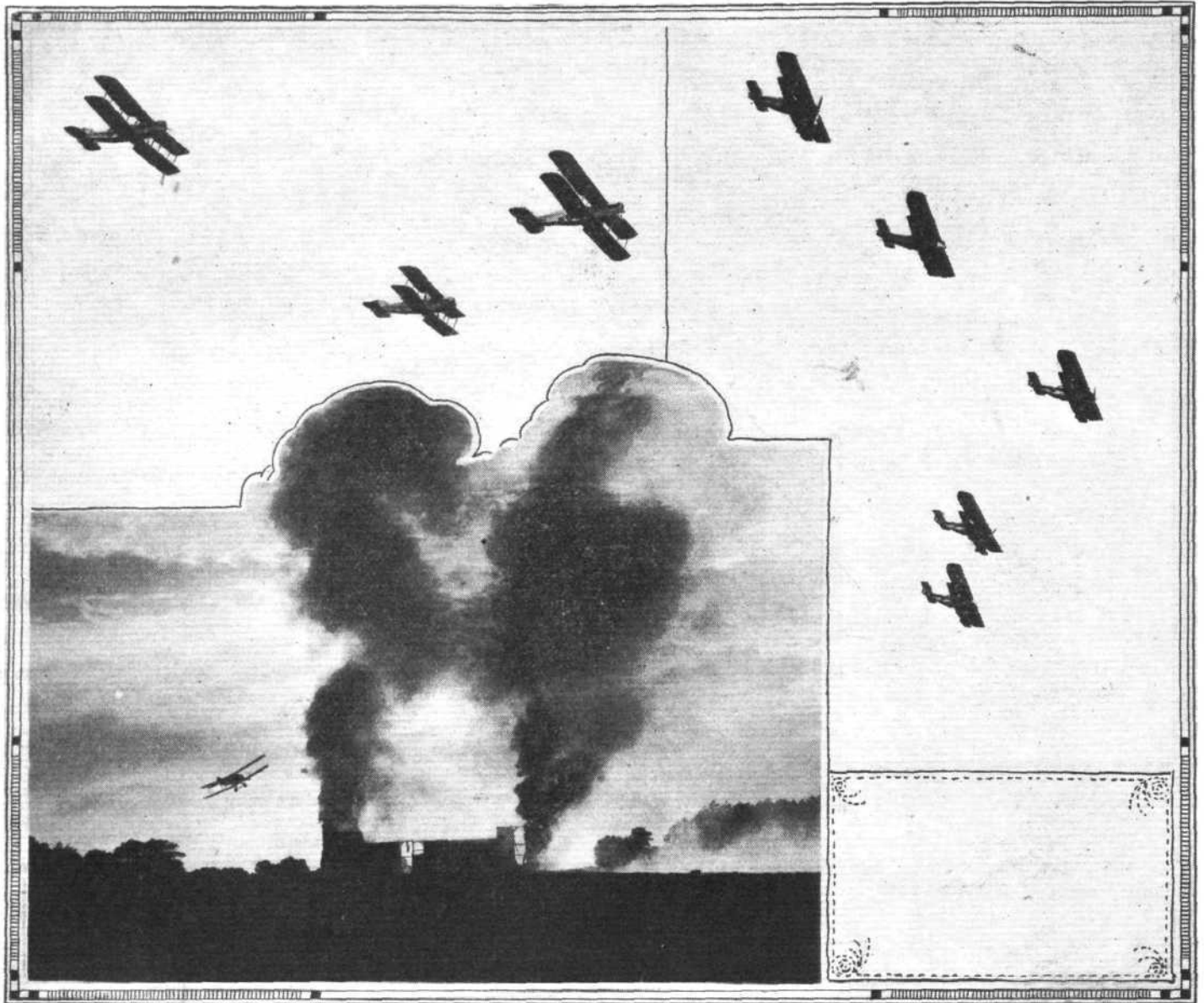
[“FLIGHT” Photographs

THE HALTON PAGEANT : Finish of the Light Aeroplane Race. First, Capt. Stack (“Cirrus-Moth”), second, Miss Spooner (“Cirrus-Moth”), third, Miss O’Brien (“Cirrus-Moth”). Inset, Capt. Broad taking off in his cleaned-up King’s Cup “Gipsy-Moth.”



[“FLIGHT” Photographs

THE HALTON PAGEANT : Above, Ladies in Mounted Musical Chairs event. Below, four competitors in the Hurdle Race.



THE HALTON PAGEANT: Destruction of Desert Stronghold. On the left, the bombers (Bristol Fighters and a D.H.9A) bomb the fort. On the right, a flight of "Siskins" machine-gunning the "native tribe."

[" FLIGHT " Photographs

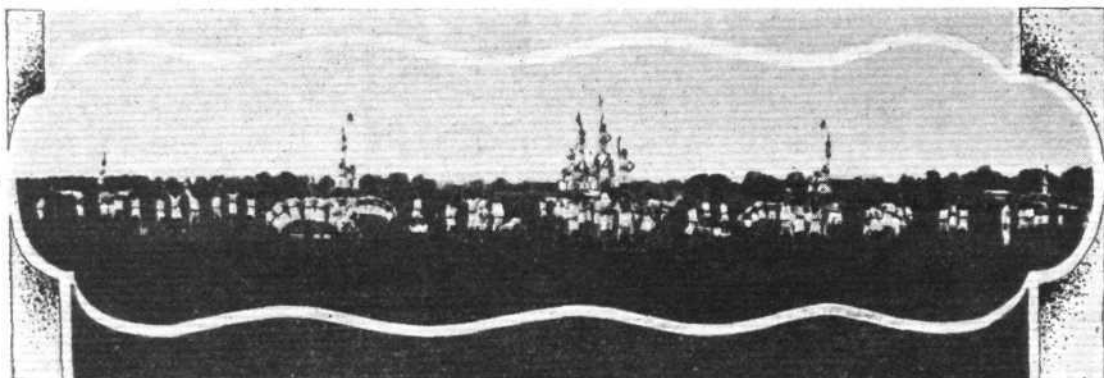
country a ground attack was considered impracticable. A formation of bombing aircraft, accompanied by single-seater fighters, was then dispatched to attack and destroy the stronghold. On the approach of the formation the defending garrison scattered " into the surrounding country," and while doing so were attacked by the fighters, first in formation and then by converging attack. Presumably to prevent the " hostile native tribe " from unscattering into the stronghold again, the bombers arrived on the scene and completed the destruction by blowing up the fort. One of our photographs shows that the bombing was singularly " symmetrical."

The non-flying events included a Mounted Bending Race, Mounted Musical Chairs, a Hurdle Race, a display of Physical Training, a Mounted Skittles Race, a Mounted Artists'

Animal Race, a Parade of Massed Drums, a Mounted V.C. Race, a Mounted Pig-sticking Competition, and a polo match, so that it will be seen that there was something for every taste.

The Physical Training Display by 150 aircraft apprentices from R.A.F., Halton, was particularly excellent, and included quick marching, double marching, figure marching and free standing exercises. It concluded with a grand final tableaux. No word of command was given, the time of all movements and exercises being set by the Band of the Royal Air Force, Halton Command.

The official programme was an excellent example of what a programme should be. It had an index to the events, giving the time of each event and the page of the programme on which details could be found.



[" FLIGHT " Photograph

A SPANISH ROUND THE WORLD FLIGHT

Commandante Franco's New Venture

THE picturesque old city of Cadiz, from whence, centuries ago, the Spanish Armada set out on its expedition against the English, will, very shortly, be the scene of the start of an adventurous expedition comparable to that of the explorer Columbus who left the little port of Palos, within 60 miles of Cadiz, some 500 years ago to set out on his voyage of discovery.

The modern Spanish adventurer is Commandante Ramon Franco, who, with three companions, is to attempt to encircle the World in a flying-boat.

Only once has this journey been successfully completed and on that occasion it was accomplished by a flight of machines. Commandante Franco will be unaccompanied by other aircraft.

The machine he has selected for his ambitious project is a huge four-engined Dornier-Napier Super-Wal flying-boat developing 2,000 h.p. This aircraft is of all-metal construction, of monoplane design with two short stub wings or stabilisers. Its four Napier engines are mounted in two pairs in tandem above the wing.

The interior of the hull is divided into compartments separated by partitions and communication with each other is through manholes.

The machine is fitted with four British built Napier Lion Series V engines, each of 12 cylinders and developing 500 h.p. It is a big compliment to British engineering that British built engines have been selected for what would otherwise be an all-Spanish flight, but Commandante Franco was so pleased with their performance on his flight from Spain to the Argentine that he insisted upon their installation for this longer flight.

The machine is so constructed that mechanics can pass from the hull up a companion way to the engines on the wing, so that periodic inspection can be carried out whilst the machine is in flight.

Although of German design the machine has been com-

pletely assembled in Spain. It has a range of 2,500 miles and it is Commandante Franco's intention to make the flight by a series of twenty long "hops."

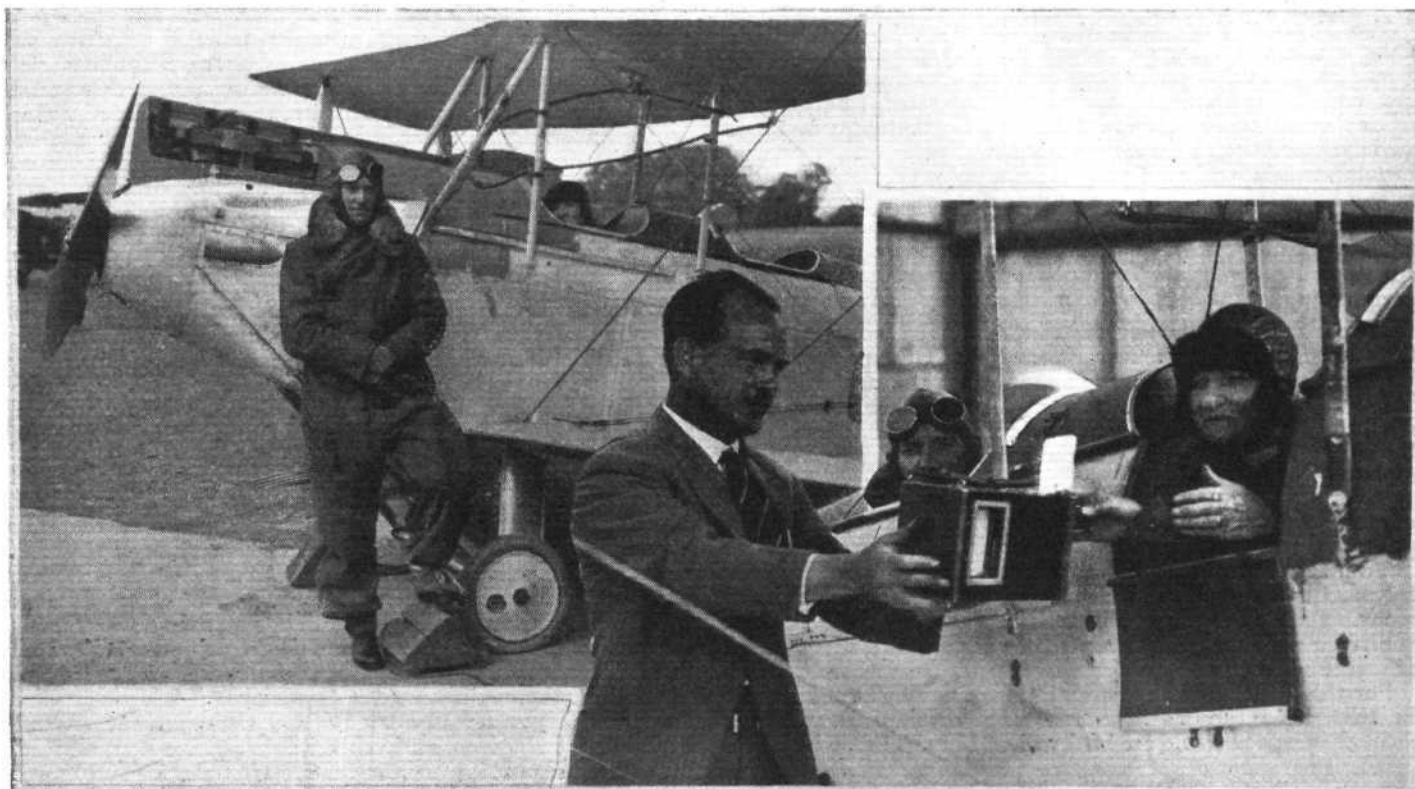
This powerful aircraft will be able to maintain a cruising speed of over 100 m.p.h. throughout the voyage, the top speed of the machine being approximately 125 m.p.h.

Commandante Franco will be accompanied by Commandante Eduardo Gonzala, assistant pilot, Captain Ruitz d'Alda, navigator, and Pablo Rada, mechanic.

The machine, fully loaded, as it will be for the majority of the stages, weighs 15,500 kilograms (34,170 lbs.) and has a petrol capacity of 8,500 litres (1,870 gallons).

The 20 stages and distances to be covered will be as follows

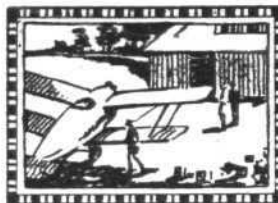
Cadiz-Azores (I. Fayal) ..	2,000 kms. (1,240 miles)
Azores-Halifax	2,850 " (1,767 ")
Halifax-New York	1,000 " (620 ")
New York-Havana	2,200 " (1,364 ")
Havana-Veracruz	1,500 " (930 ")
Veracruz-La Paz	2,000 " (1,240 ")
La Paz-San Francisco	1,900 " (1,178 ")
San Francisco-Prince Rupert ..	2,000 " (1,240 ")
Prince Rupert-Unalaska	2,300 " (1,426 ")
Unalaska-Paramuschir	2,400 " (1,488 ")
Paramuschir-Tokio	2,400 " (1,488 ")
Tokio-Kagosima	1,000 " (620 ")
Kagosima-Manila	2,300 " (1,426 ")
Manila-Port Vitoria	2,500 " (1,550 ")
Port Vitoria-Colombo	2,200 " (1,364 ")
Colombo-Bombay	1,700 " (1,054 ")
Bombay-Bushire	2,500 " (1,550 ")
Bushire-Alexandria	1,800 " (1,106 ")
Alexandria-Palermo	2,000 " (1,240 ")
Palermo-Cadiz	1,550 " (961 ")
Total distance	40,100 " (24,862 ")



["FLIGHT" Photographs

A NEW BRITISH WORLD'S RECORD: On July 25 Capt. Geoffrey de Havilland established a new world's altitude record for the 2-seater light 'plane class, when, accompanied by his wife, he ascended from Stag Lane in a standard "Moth" fitted with the new 85-100 h.p. "Gipsy" engine, and reached an altitude (subject to correction) of 21,000 ft. Capt. de Havilland is seen (on the left) standing by the machine just before the start, and on the right, Mrs. de Havilland is seen receiving the sealed barograph.

PRIVATE



FLYING

A Section of **FLIGHT** in the Interests of the Private Owner, Owner-Pilot, and Club Member

A FRENCH INTERNATIONAL LIGHT 'PLANE MEETING

To be held at Orly, September 10-21

ONCE more the French Aerial Association is holding an International Light 'Plane Competition at Orly under the rules and regulations of the F.A.I. The meeting is open to countries represented on the F.A.I., and is for light 'planes the tare weight of which does not exceed 400 kg. (880 lbs.). The entrance fee is 200 francs per machine, and entries will be received up to 6 p.m. on August 11. Entries should be sent to, and all information may be obtained from, *l'Association Francaise Aérienne*, 40, Quai des Celestins, Paris 4e. Machines entered for the competition must be at the Orly aerodrome (South of Paris), before 3 p.m. on Sunday, September 9. Machines will be numbered in the order of entry, and will carry these numbers in the competition.

Prizes totalling 150,000 francs are offered and will be distributed as follows: first prize, 80,000 francs; second prize, 50,000 francs; and third prize, 20,000 francs.

Nature of the Competition

The competition will be divided into three parts: a "quality" competition, an "efficiency" competition, and a reliability competition. Classification will be by marks awarded. The "quality" competition is to be held on September 10-11, the "efficiency" competition on September 12, and the reliability trials from September 14-21 inclusive.

In the "quality" competition there will be take-off and climbing tests, as well as an award of marks for certain qualities to which reference will be made later.

The Take-off Tests.—Machines will start from a certain fixed mark and take off in the shortest possible distance, a maximum of 250 m. being permitted. Machines exceeding this will be disqualified. Marks will be awarded at the rate of one mark for each 4 m. between the maximum distance permitted and that actually attained.

The Climbing Tests.—In these an altitude of 1,500 m. (4,920 ft.) has to be attained in the shortest possible time. Maximum permitted 30 minutes. A machine exceeding 30 minutes will be disqualified. Marks will be awarded at the rate of two for every 20 seconds between the 30 minutes permitted and the time actually attained.

Marks awarded for various qualities.—15 marks will be awarded for each passenger carried, a minimum weight of 75 kg. (165 lbs.), or made up to that weight being stipulated. To count as proper passenger accommodation there must be space to seat a passenger 1.75 m. (5 ft. 9 in.) high. In the flying tests carried out later the passenger may be replaced by ballast.

Five marks will be awarded for each seat equipped with parachute, the latter having to be so placed that it could be used.

Twenty marks will be awarded for anti-fire appliances or for placing tanks in a position where a fire is unlikely to occur.

Fifteen marks will be awarded for wing and tail coverings of metal or wood.

For the dismantling and erecting test 30 mins. are allowed. In that time the machine must be dismantled, wheeled through a space 3 m. (9.84 ft.) wide, 3.5 m. (11 ft. 6 in.) high

and 10 m. (32.8 ft.) long. Any tools used in this operation must be carried on board during the flying tests.

Ten marks will be awarded for starting appliances carried on board. During a period of 15 mins. three starts must be made, the first from cold. After each start the engine must be kept running for 1 min.

Ten marks will be awarded for dual controls, the pilot having to make two flights of 5 mins. each, controlling the machine alternatively from the two seats.

Five marks will be awarded for devices preventing the machine from turning over, or for means of protecting the occupants in case the machine turns over. Emergency exits will count for these marks.

Five marks will be awarded for comfortable cockpits for the pilots, giving good view and protection against noise.

The "Efficiency" Test

In the "Efficiency" test machines will be required to fly a circuit without landing and without refuelling of 400 km. (248.5 miles), and marks will be awarded according to the

formula $\frac{P \times V}{C}$ in which P is the useful load in kg., V the

speed in km./h., and C the total consumption in kg. of fuel and oil for the circuit. The useful load does not include fuel and oil, nor tools, etc. It does, however, include pilot and passenger, and also any ballast carried. The latter will be regarded as mail-bags weighing 15 kilos each, and must be capable of going into a space 0.45 m. (1.475 ft.) by 0.25 m. (0.82 ft.) by 0.4 m. (1.31 ft.).

The Reliability Trials

The rules and regulations concerning the reliability trials are a little vague. It is gathered, however, that these trials may take the form of a circuit of France, although the Official Rules do not definitely say so. It is intended that there shall be six stages in the reliability trials, each of approximately 400 km. (248.5 miles) in length. Machines will start each morning at 8 a.m., and must reach the end of each stage before 4 p.m. on the same day. Failure to do so will disqualify a competitor as far as that particular stage is concerned, but not for any other stage or marks. In other words, he will lose the marks for that particular stage only. Machines covering a stage within the prescribed time will be awarded 60 marks per stage properly completed. It is pointed out that the number of stages may be varied, as the number will depend upon the possibility or otherwise of arranging a convenient circuit in which the stages are all of approximately 400 km.

We understand that already entries have been received, or promised, from several countries, and it is to be hoped that a large number of British machines will be entered. Our "Moths," "Avians," "Widgeons" and "Bluebirds" should do well in a competition of this nature. It will be observed that no limit is set on the power of the engines, but that the amount of fuel and oil consumed on the 400 km. circuit is weighed. As the regulations do not contain any reference to changes of jets, etc., presumably it is permissible to "fake" the engines for the "efficiency" test and still to use the full power available for the climbing and take-off tests.

A New Light Plane Club for London

A NEW light 'plane club has been formed in London—No! not the London in England, but the London in Ontario, Canada. It has for its Directors the following:—President, R. H. Cronyn; Vice-president, W. L. Scandrett; secretary, L. Smallwood. The committee in charge of all club activities are, in addition to the above, J. G. Gillanders;

D. Menzies; J. E. Croden; E. A. Spence; L. Johnston; F. Baughart; H. A. McIntosh; G. A. Arthur; and Lt.-Col. W. H. Kippen. There are already some 35 members ready to take instruction, and the first of the two D.H. Moths, which the Dominion Government has assigned to the Club, was delivered early in July. Some notes on two other Canadian Clubs will be found elsewhere.

THE WINNIPEG FLYING CLUB

THE Winnipeg Flying Club was given its official start on Monday, May 28, by Hon. John Bracken, Premier of Manitoba. As part of the ceremonies, Mrs. Bracken broke a bottle of champagne over the propeller boss of the club's new D.H. "Moth," naming it "Miss Manitoba," after which both the Premier and Mrs. Bracken took flights with the instructor, M. de Blicquy.

On the previous day the field had been dedicated to the late Capt. F. J. Stevenson by Rev. R. Mutchmor, assisted by Mr. and Mrs. Joseph Stevenson, parents of the airman whose name was being commemorated. Mrs. Stevenson unveiled a grey marble tablet, which at present stands just inside the enclosure but will be moved to the club-house when the latter is built.

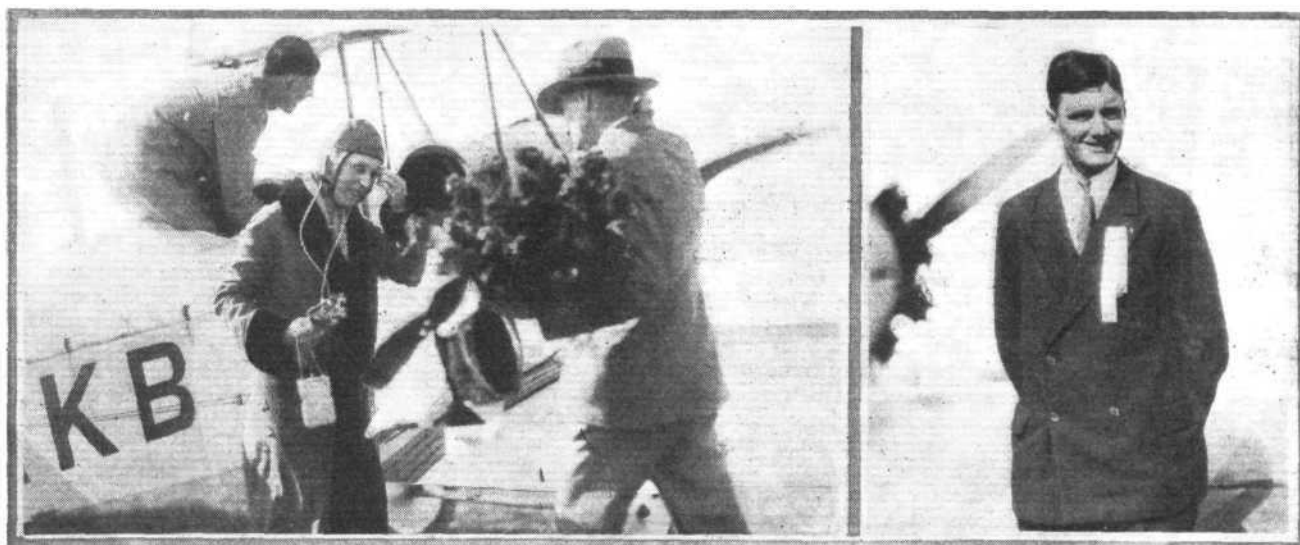
The main attraction to the seven or eight thousand people who flocked to Stevenson Aerodrome on the Monday afternoon was the visit of 13 United States planes on a goodwill tour from Crookston, where an air "Derby" and pageant had been held the previous Saturday. A Stinson Detroit

the crowd what was perhaps its greatest thrill in a display of low flying on the Huff-Daland. Premier Bracken and Attorney-General W. A. Major of Manitoba, took flights in the U.S. army machines, and flying of various sorts was continuous all the afternoon.

Mr. Holman, Premier Bracken, Mr. Youngquist, and others, were speakers at a banquet in the evening tendered by the Junior Board of Trade, concluding a day which had been an outstanding success, particularly as it was Winnipeg's first flying meeting.

G-CAKB, the first Moth delivered to the Winnipeg Flying Club, was given its test flight on May 27 by M. de Blicquy, the instructor. From that day dual instruction continued as steadily as weather permitted, and two days of unremitting downpour on June 18 and 19 caused the first real hold-up. By that time the machine had flown 94 hours, of which seven were solo hours by the five ex-Service pilot members who had completed their dual "refreshers."

In all, 35 members are taking instruction at present,



WINNIPEG FLYING CLUB : Left, Mrs. J. Bracken, who christened the first D.H. "Moth" belonging to the Winnipeg Club, landing from the machine after a flight with Mr. Michael de Blicquy, and receiving a bouquet from the Chairman, Mr. Roy S. Parkhill, and right, Mr. C. W. ("Speed") Holman, operating manager of North Western Airways, Inc. St. Pauls, Minn., thrilled the crowd with his flying at the opening of the Winnipeg Club. He is noted for his record loops.

biplane, piloted by Charles W. (Speed) Holman, world's loop-the-loop champion, arrived in the first flight with two Curtiss Falcons from the 109th Squadron, Minnesota National Guard. They were under command of Major Ray S. Miller, and were led to the field by Capt. Shields, R.C.A.F., in a Whirlwind Huff-Daland, carrying as passenger, E. J. W. Loucks, secretary of the Winnipeg Flying Club. In the military machines the passengers were Attorney-General C. Youngquist, of Minnesota, and Colonel J. F. Nelson, Assistant Adjutant-General of the same State. The second flight of seven machines arrived an hour later, and included four Wacos, an Eaglerock, a Travel-Air and an American Eagle. Later in the day a Ryan Brougham arrived independently.

The grand fly-past of all aircraft followed immediately on the opening and baptismal ceremonies, after which the military craft remained in the air for a short demonstration and "Speed" Holman put his big four-seater through a repertoire of stunts. He later took up a Travel-Air and then the club "Moth" for aerobatics. Capt. Shields gave

five *ab initio* students being ready to go solo as soon as they can complete the prescribed 8 hours' dual.

One broken valve rocker-arm on the Cirrus engine, a new tail skid spring, one centre-section bracing bolt and a punctured tyre have been the only repairs needed to date. The second "Moth" is expected daily at the time of writing, its arrival being eagerly looked for by solists and prospective passengers.

During the week ending June 17, 25 hrs. 18 mins. were flown, which brought the total up to 92 hrs. 3 mins. Flights for that week numbered 347, bringing the total in that respect since the commencement of flying three weeks before, to 1,005.

Dual work took up 22 hrs. 43 mins. under M. de Blicquy, and 2 hrs. solo flying was carried out between four members. The machine was thought to have struck a rock whilst landing and damage was done to the rear of the fuselage, but repairs were effected and flying resumed. In the following week 16 hrs. were flown.

That brought the flying hours up to 108 and the number of flights 1,200.

MONTREAL LIGHT AEROPLANE CLUB

THE followers of the light 'plane club movement in this country will have a particular interest in the Montreal Club, for its chief instructor is Capt. F. G. M. Sparks, who was Chief Instructor of the London Aeroplane Club before he decided to take up the Canadian position this year. The club started in Montreal in September, 1927. There was an enrolment of members totalling 128, but 1,700 applications were received. That number could not be handled, so a new system was made which arranged for 150 flying members

and unlimited non-flying members, but very soon it was found that 175 flying memberships were received whilst the non-flying membership totals more than 1,700. Many of the latter wish to transfer to the active side, but they have to wait for vacancies.

The cost of flying was based on data received from England and Australia, and also upon the advice of Mr. St. Barbe, of the De Havilland Aircraft Co., Ltd., who was in Canada at the time. It was proposed to keep the charges as low as

possible to give everyone a chance, with the idea that, in the event of deficits, money could be obtained in other ways. It was felt that the people of Montreal would come to their support in the interests of aviation, and this was amply justified. The charge for flying is five dollars an hour. It was also wisely felt that the services of the best flying instructor should be sought, and thus Capt. Sparks, whose claims as a club instructor are unrivalled, was offered the position. His popularity, we are informed, is already widely spread, and he is familiarly known as "Sparkie." His flying hours are reputed to be between 6,000 and 7,000 during his career.

In the winter lectures were given on the theory of flight by Mr. Berlin, who is assistant aeronautical engineer to Canadian Vickers, Ltd., and many others. There were also French lectures at L'Ecole Technique for the French section of the Club. The lecturer was Capt. St. Jean. The membership of the club is made up of French and half-English speaking Canadians, and there is equal representation on the board. The Government presented the club with two D.H. "Moths," many members have ordered machines, and much flying is carried through at St. Hubert, where the flying field is located. In the first week 54 hours of instruction were given, whilst the demands for flights are expected to mean the purchase of new machines in the near future. Flying pupils are carefully picked, and old pilots in particular are chosen, with the object of providing assistance to the club instructors once they have qualified. Two hangars for individual machines have been donated by the Imperial Oil Company, Ltd., at Montreal.

The club arranged to sponsor an aircraft show in that city between July 7 and 15, the first of its kind in Canada. It was hoped that the financial gain would be equal to the cost of more aeroplanes. Fifteen machines were to be exhibited, including a Sopwith "Camel," an Armstrong-Siddeley "Siskin," a Canadian Vickers "Vedette" flying-boat, and a Fairchild cabin monoplane. Among the American exhibits expected to be there were a Travel Air monoplane (six-passenger) and a three-passenger machine by the same company; a Monocoupe, a Swallow, and a Driggs "Dart." D.H. "Moths" and Avro "Avians" were also to be shown.

The christening of the club's two machines was proposed for the opening night, the names selected being the "Bill Lighthall" and the "Ted Peacock," after the two men who started the club. Incidentally they were also the pair who started the club movement in the Dominion.

For publicity purposes parachute jumps were organised, and the "North Star," the machine in which Thea Rasche, the German airwoman, was to attempt the Atlantic flight recently, was to fly over the city and drop propaganda matter.

The present officers of the club are:—President, Capt. W. S. Lighthall; Vice-President, Capt. L. J. St. Jean; Hon. Treasurer, Mr. C. Gordon Brown; Hon. Secretary, Capt. E. F. Peacock. Directors: Mr. F. S. McGill, Mr. G. K. Trimm, Mr. H. St. Martin and M. Jacques Cartier. Mr. Arthur H. Mingay is the Secretary-Treasurer. The list of honorary officers, headed by Sir S. Arthur Currie, G.C.M.G., K.C.B., LL.D., as Honorary President, is representative of practically every phase of business and political life in the Province of Quebec.

This club was formed when a wave of interest in aviation swept Canada, following Col. Charles Lindbergh's flight across the Atlantic. Capt. Peacock, one of the two originators mentioned above, was one of the pilots who applied to pilot the machine called the "Sir John Carling" for the proposed flight from Canada to England. Our readers will remember that it failed, with the loss of the crew, Capt. Tully and Lieut. Medcalf.

Capt. Peacock and his war-time friend, Capt. Lighthall, wrote to the Government asking what they were prepared to do towards forming clubs on the lines of those in England. They attended a meeting later at Ottawa with representatives from all over the Dominion, at the request of Major-General J. H. MacBrien, and that started the general movement, embracing, among many other cities, Montreal. Major-General MacBrien has been presented with a De Havilland "Moth" seaplane by Sir Charles Wakefield for his personal use in connection with his work as President of the Aviation League of Canada, in appreciation of his efforts in the cause of air-mindedness. A similar gift of Sir Charles Wakefield's was for the Toronto Flying Club.

LIGHT 'PLANE CLUBS

London Aeroplane Club, Stag Lane, Edgware. Sec., H. E. Perrin, 3, Clifford Street, London, W.1.

Bristol and Wessex Aeroplane Club, Filton, Gloucester. Secretary, Capt. C. F. G. Crawford, Filton Aerodrome, Patchway.

Hampshire Aero Club, Hamble, Southampton. Secretary, H. J. Harrington, Hamble, Southampton.

Lancashire Aero Club, Woodford, Lancs. Secretary, C. J. Wood, Oakfield, Dukinfield, near Manchester.

Midland Aero Club, Castle Bromwich, Birmingham. Secretary, Maj. Gilbert Dennison, 22, Villa Road, Handsworth, Birmingham.

Newcastle-on-Tyne Aero Club, Cramlington, Northumberland. Secretary, J. T. Dodds, Cramlington Aerodrome, Northumberland.

Norfolk and Norwich Aero Club, Mousehold, Norwich. Secretary, G. McEwen, The Aerodrome, Mousehold, Norwich.

Nottingham Aero Club, Hucknall, Nottingham. Hon. Secretary, Cecil R. Sands, A.C.A., Imperial Buildings, Victoria St., Nottingham.

The Scottish Flying Club, 101, St. Vincent Street, Glasgow. Secretary, Harry W. Smith.

Southern Aero Club, Shoreham, Sussex. Secretary, C. A. Boucher, Shoreham Aerodrome, Sussex.

Suffolk Aeroplane Club, Ipswich. Secretary, Maj. P. L. Holmes, The Aerodrome, Hadleigh, Suffolk.

Yorkshire Aeroplane Club, Sherburn-in-Elmet, Yorks. Secretary, Lieut.-Col. Walker, The Aerodrome, Sherburn-in-Elmet.

LONDON AEROPLANE CLUB

FLYING return for week ending July 29:—Flying time, 60 hrs. 35 mins. dual instruction, 21 hrs.; solo flying, 39 hrs. 35 mins.

Solo flying: H. M. Samuelson, G. J. C. Paul, P. W. Hoare, I. C. Horton, Maj. Beaumont, Maj. R. M. S. Veal, W. Roche Kelly, E. L. D. Moore, C. Campbell, E. A. Lingard, J. H. Saffery, O. J. Tapper, B. B. Tucker, G. Robson, F. C. Fisher, G. Larden, T. E. Hearne, P. A. Wills, R. Malcolm, A. J. A. Miller, L. J. C. Mitchell, J. J. Hofer, A. C. Collins, J. C. V. K. Watson, S. Burt, R. Sanders Clark, E. J. Brough, A. F. Wallace.

Dual instruction: R. S. Rattray, H. W. Marlow, B. O. Davis, A. Pitt, Miss Johnson, R. M. Doidge, A. Hill Reid, Miss Wilson, A. C. Thomas, E. H. Thierry, C. W. Bonnicksen, A. O. Wigzell, Miss Hicks, J. W. Radbone, L. G. Sykes, B. Carey, A. C. Collins, R. F. G. Adams, Mrs. Thatcher, A. Courtauld, E. Davis, C. Peckham.

During the week Mr. E. A. Lingard, Mr. A. J. A. Miller, and Mr. P. A. Wills, passed the tests for their Aviator's Certificates.

Holidays.—Members are reminded that the club will be closed down for the staff holidays from August 14 to 25, both days inclusive.

Pilot Instructor.—Capt. S. L. F. St. Barbe is relinquishing his post as Chief Pilot Instructor to the Club on August 1, to take up another appointment in Civil Aviation.

Mr. V. H. Baker, the Chief Pilot Instructor of the Lancashire Aero Club, has been appointed to take his place. Mr. Baker wished to come south for family reasons, and the action of the Lancashire Aero Club, in releasing him to the London Aeroplane Club, is greatly appreciated.

THE BERKS, BUCKS & OXON AEROPLANE CLUB

The above light aeroplane club has recently been formed for the three counties of Berks, Bucks, and Oxon, with its headquarters at Reading. The site for the aerodrome has not yet been decided upon. Copies of the abridged memorandum, together with application for membership forms, may be obtained on applying to the Hon. Sec. and Treasurer, Miss L. Cribb, 12, Highmoor Road, Caversham, Reading, on and after August 1, 1928.

BRISTOL & WESSEX AEROPLANE CLUB, LTD.

REPORT for week ended July 28:—Total flying, 24 hrs. 25 mins. Dual instruction, 12 hrs. 55 mins.; solo instruction, 50 mins.

Soloists: Mr. Downes-Shaw, Mr. Jopp, Hon. H. C. H. Bathurst, Capt. Davy, Mr. Tratman, Miss Miles, Hon. B. L. Bathurst.

Instruction under Mr. Travers: Miss Miles, Dr. Farr, Dr. Lysaght, Messrs. Peters, Allinson, B. L. Bathurst, Charlton, Evans, Neale, Chopra, Singh, Lynas, Greenhill, Rogers, Byrnes, Heaven, Newman, Putnam and Laws.

Instruction under Mr. Tratman: Messrs. Neale, Keeling, Lynas and Greenhill.

Cross-country flights: Mr. Downes-Shaw (Mr. Leaver as passenger), 1 hr.; Mr. Travers (Mr. Hall as passenger), 3 hrs.

Soloists under instruction this week were Miss Miles and the Hon. B. L. Bathurst. We hope to see both of these get their licences very shortly. Many others are also well on the way to qualify and if the weather is kind we should reap a good crop of licences.

CINQUE PORTS FLYING CLUB

REPORT for week ending July 21:—Machine, de Havilland Moth S.S.; total time, 6 hrs. 25 mins.; test flights, 15 mins.; journeys, 2 hrs. 45 mins.; Joyrides with Maj. Clarke: Mrs. MacLaren, Maj. MacLaren, Mrs. Pearson, Mrs. Sargent, 10 mins. each.

Dual instruction with Maj. Clarke: Mr. R. Dallas Brett, 30 mins.; Mr. Gunner, 30 mins.; Mr. Pakenham, 30 mins.; Mr. West, 30 mins.; Mr. Swinard, 15 mins.

Soloists: Mr. R. Dallas Brett, 15 mins.; Mr. West, 30 mins.

During this week the machine was exhibited in the Kent County Agricultural Show at Folkestone, where it attracted considerable attention, and was instrumental in obtaining several new members and subscribers. Maj. Clarke flew the machine on and off the polo ground adjoining the Show.

REPORT for week ending July 28:—Machine, de Havilland Moth S.S.; total time, 5 hrs.; test flight, 5 mins.; journey, 1 hr. 10 mins.

Dual instruction with Maj. Clarke: Mr. Skinner, 45 mins.; Mr. Crowther, 1 hr. 45 mins.; Mr. Read, 1 hr.; Mr. Barton, 30 mins.

Soloist: Mr. Wright, 15 mins.

New members continue to sign on and this week all the pupils under instruction are new members who have had no previous experience.

Folkestone Herald and Kent Evening Echo Cup.—This award was given by the newspapers concerned for the fastest time by a private owner unconnected with the manufacturers of the machine or engine, who made fastest

time in the King's Cup Race between Southampton and Lympe. The result is as follows:—

First, No. 13, Sqdn.-Ldr. H. Probyn, flying under the name of H. Brooklyn, in his Westland Widgeon, Armstrong-Siddeley Genet engine. Time for the 103½ miles, 1 hr. 1 min. 34 secs.

Second, Mr. Norman Jones, in de Havilland Moth, Cirrus engine. Time, 1 hr. 1 min. 38 secs.

Mr. Norman Jones was at first thought to be the winner, but a close check of the figures by the Royal Aero Club timekeepers, showed that Sqdn.-Ldr. Probyn had won by the narrow margin of 4 secs.

HAMPSHIRE AEROPLANE CLUB

REPORT for week ending July 27.—Total flying time, 60 hrs.; dual instruction, 36 hrs.; "A" Pilots, 6 hrs. 10 mins.; solo, 7 hrs. 45 mins.; passenger flights, 8 hrs. 55 mins.; Tests, 1 hr. 10 mins.

Instruction with Flight-Lieut. Swoffer and Mr. W. H. Dudley: Sqdn.-Leader Bradyll Johnson, Mr. Sturge, Mr. Farmer, Mr. Neave, Miss Melville, Mr. Beagley, Mr. Buckley, Mr. Cambell, Mr. Redwood, Mr. Clifford, Mr. P. L. B. Wills, Mr. Powell, Mr. Craske, Mr. Southcliffe, Lieut. Dallmeyer, Flight-Lieut. D'Aeth, 2nd Lieut. Colls, Mr. Goldman, Comdr. Bell, Mr. Phillimore, Mr. Dalrymple Smith, Mr. Donner, Mr. Evershed, Mr. Matlock, Mr. Rumble, Mr. Richardson, Dr. Russell, Mr. Brodrick, Mr. Tobutt, Mr. O. E. Simmonds, Mr. Smith, Mr. Baker, Lieut. Coope.

"A" Pilots: Lieut. Fagan, Capt. Kirby, Lieut. Heath, Mr. Bowen, Lieut. Heinemann, Mr. Baynes, Mr. Parker, Don J. de la Cierva, F. O. Hayter, Mr. Michlemore, F. O. Mellor.

Soloists: Mr. Willis, F. O. Southey, Mr. Wells, Mr. Curtis Nuthall, Miss Grace, Mr. Townsend, Mr. King, Flight-Lieut. D'Aeth, Mr. Colls, Mr. Whittle.

Passengers: Mr. Upham, Miss Bailey, Mr. West, Miss Roake, Mr. Boxall, Mr. Holland, Mr. Bennett, Mrs. Gordon Smith, Miss Gordon Smith, Mrs. Holmes, Miss Allen, Mrs. Stugg, Mrs. Hopgood, Mr. Belville.

We were very interested on Sunday when Don J. de la Cierva brought over a party of Spanish gentlemen who are forming a light aeroplane club near Madrid. They each had a joy flight in one of the club "Moths" and expressed themselves as being very pleased with their experience.

On Thursday we were visited by Messrs. Bellairs and Miles from the Shoreham Club.

Capt. Lawrence Hope, the winner of the King's Cup race, also visited us on Thursday, and we were pleased to have the opportunity of congratulating him personally.

Note.—The club will be closed from August 4 to 13 inclusive, for the summer holidays.

LANCASHIRE AERO CLUB

REPORT for week ending July 21.—Flying time, 31 hrs. 10 mins. Instruction: 15 hrs. 20 mins. Solo flights: 8 hrs. 30 mins. Passenger flights: 6 hrs. 5 mins. Tests: 1 hr. 15 mins.

Instruction (with Mr. Baker): Messrs. Tweedale, Garner, Meads, Chart, Davies, Nelson (J. G.), Goss, Weale, Scholes (F.), Ashworth, Faulkner, Allott, Kay, Greenhalgh, Williams, Davies (D. B.), Gort, Agar, Harrison, Secker, Patrieoux, Miss Baerlein and Miss Emery; (with Mr. Cantrill): Mr. Stern.

Soloists (under instruction): Messrs. Tweedale, Chart, Mills.

Pilots: Messrs. Lacayo, Gort, Nelson, Riley, Leeming, Goodfellow, Chapman, Michelson, Meads and Brooking.

Passengers: 24 passengers were carried by Messrs. Scholes, Baker, Lacayo, Leeming and Goodfellow.

QL came back to service with the new type under-carriage (radius rods in front), and went off the following day to Liverpool for the Liverpool Club's Aerial Gymkhana. She arrived back in the evening with the under-carriage in a drunken and lop-sided condition. Grave suspicion attaches to Mr. Michelson in this connection, who is stated to have gone in for the "landing high jump." Mr. Goodfellow took OK over to Blackpool to give consolation joy-rides to the five entrants for the Blackpool Nomination Handicap who were disappointed of a flight during the meeting. The Alpha-Gospport (NF) is at last in service, and all dual will in future normally be carried out on this type. She first came into use at the week-end and proved extremely popular, so much so that all the Soloists evinced a desire to go back on to dual again.

MIDLAND AERO CLUB LIMITED

REPORT for week ending July 21.—Total flying time, 42 hrs. 42 mins. Dual: 19 hrs. 40 mins. Solo: 17 hrs. 18 mins. Passenger: 4 hrs. 40 mins. Tests: 1 hr. 4 mins.

Following members were given dual instruction by F./Lt. T. Rose, D.F.C. and Mr. W. H. Sutcliffe: R. L. Brinton, Dr. K. G. Tilleke, T. H. Drury, L. V. Mann, H. Coleman, Major D. Thomson, J. Cobb, M. A. Murtagh, N. Khatri, G. E. C. Hill, H. Beamish, Capt. J. C. Chaytor, G. E. C. Jones, F. J. Steward, H. Lattey, J. W. Astley, W. M. Morris, G. P. Haylock, R. G. Welch, O. L. Richards, A. E. Colman, G. Savage.

Solo: S. G. Hall, J. Cobb, E. D. Wynn, H. Tipper, O. L. Richards, G. Savage, R. D. Bednell, H. Lattey, R. L. Jackson, W. M. Morris, G. E. C. Hill, E. P. Lane, S. H. Smith, H. J. Willis, G. Robson, G. C. Jones, R. L. Brinton, R. B. Baxter, E. J. Brighton, C. W. Fellowes, S. Duckitt.

Passengers: Dr. Johnson, N. R. Greathead, B. Advani, E. Russell, O. W. Banwell, A. B. Houghton, Mrs. Griffin, Mrs. Harley, F. J. Powell, D. Eilford, A. Harley, Mrs. Willis, S. H. Smith.

On Tuesday Mr. G. C. Jones successfully made his first solo. During the week Messrs. R. L. Brinton, R. C. Baxter, and G. G. Savage passed all tests for their "A" licence.

On Tuesday F./Lt. Rose flew XT to Stag Lane to have a new petrol tank fitted.

The Castle Bromwich control for the King's Cup Race appeared to work quite smoothly. The ultimate winner of the race was heard "whispering" his opinion of the previous control in strictly Biblical language. We have not heard what he said about us on arrival at Nottingham.

REPORT for week ending August 28.—Total flying time, 43 hrs. 57 mins. Dual, 25 hrs. 13 mins.; solo, 12 hrs. 58 mins.; passenger, 4 hrs. 43 mins.; tests, 1 hr. 3 mins.

The following members were given dual instruction by Flight-Lieut. T. Rose, D.F.C., and Mr. W. H. Sutcliffe:—S. G. Hall, R. D. Bednell, W. M. Morris, G. P. Haylock, L. V. Mann, R. G. Welch, Dr. W. G. Tilleke, J. Cobb, M. A. Murtagh, J. H. Guthrie, T. H. Drury, L. H. Lee, G. C. Jones, O. L. Richards, H. Coleman, F. J. Steward, J. W. Astley, R. L. Brinton, R. B. Laidlaw, E. L. Hulme, S. Duckitt, N. Khatri, R. C. Baxter, Capt. J. C. Chaytor and Capt. H. G. Tower.

Soloists: J. Rowley, R. L. Jackson, S. H. Smith, J. Cobb, G. E. Hill, G. G. Savage, E. J. Brighton, H. Lattey, G. C. Jones, C. W. Fellowes, O. L. Richards, M. A. Murtagh, E. D. Wynn, G. Robson, S. Duckitt, S. G. Hall, H. J. Willis, W. M. Morris, E. L. Hulme, R. D. Bednell, W. Swann, R. C. Baxter.

Passengers: Dr. Johnson, L. Rowley, L. V. Mann, D. W. Bruton, C. Eekersley, J. H. Moore, J. C. Williamson, E. R. Thomas, Mrs. Griffin, J. Stamps, C. T. Davis.

On Monday Mr. M. A. Murtagh made his first solo flight.

On Thursday Flight-Lieut. T. Rose flew XT to Halton for the Gymkhana. The club will be closed from Thursday, August 2, till Tuesday, August 7.

NEWCASTLE-UPON-TYNE AERO CLUB

REPORT for week ending July 22.—Total flying time: 35 hrs. 25 mins. Instruction: 3 hrs. "A" Pilots: 12 hrs. 40 mins. Passengers: 18 hrs. 55 mins. Test: 50 mins.

Instruction (with Mr. J. D. Parkinson): Mrs. Kish, Messrs. Cameron, De Pledge, Dodds, Lawson.

"A" Pilots: Miss Leathart, Mrs. Heslop, Dr. Dixon, Messrs. A. H. Bell, Runciman, De Pledge, R. N. Thompson, Irving, Robertson, Turnbull, W. B. Ellis, Percy, C. Thompson, Wilson and Heppell.

Passengers (with Mr. J. D. Parkinson): Messrs. Bulmer, White, Miss Klyver, Miss Bakewell.

The disappearance of Mr. G. N. Warwick on the last stage from Cramlington to Renfrew during the King's Cup Race, caused great anxiety to all members, and search patrols were instituted along the course into the Border country. These were only abandoned when news arrived that Mr. Warwick had crashed near Peebles with fatal results.

To Mrs. Warwick and family we tender our deepest sympathy.

NORFOLK & NORWICH AERO CLUB

REPORT for week ending July 22.—Total flying time: 4 hrs. 40 mins. Instruction (with Mr. Young): Messrs. C. Bethell, A. Richardson, C. C. White, C. Mills, A. Kirkby, G. Wharton.

Soloists: Messrs. C. Barker, C. C. White, A. Cooper, E. Lambert. Passengers: 2.

With both machines out of action at the same time one asks what precisely an aero club should do then. It looks as if we shall not have a Moth for a week or even two on account of a slight shock received when landing. Oh! these landings, they are the cause of all the trouble; pity one cannot regulate the ground to suit.

We offer our congratulations to Mr. Hope on his again winning the King's Cup. It was a good race.

NOTTINGHAM AERO CLUB

FLYING report from July 7 to July 27.—Total flying time: 73 hrs. 15 mins. Dual instruction: 20 hrs. 25 mins. "A" pilots: 11 hrs. 50 mins. Solo under instruction: 30 hrs. 20 mins. Passenger flights: 6 hrs. 15 mins. Tests: 4 hrs. 25 mins.

Instruction with Mr. Martin: Miss Bostock and Messrs. Chawla, Shipside, Taylor, Hatton, Glenn, Austin, Calladine, Thirby, Walter, Bennett, Stevenson and Winn.

"A" pilots: Messrs. Cyril Sands, Blake, Ashworth, Ball, Cox, Hallam, Whitby, Pilgrim, Wilcox and R. Granger.

Solo (under instruction): Messrs. Bradley, Selvey, Taylor, Hatton and Shipside.

Service pilot: Mr. Spaight.

Passengers: Mrs. Hallam, Mrs. and Miss Austin, Miss Lambert, Mrs. Willett, Mrs. Walter, Miss Riddish, Mrs. A. C. Ball, Miss Measham, Miss Standing, Miss Klensch, Dr. Mullins and Messrs. Fauril, C. E. Glenn, Gooding, Moody, Austin, Martin, Farrow, Willett, Cullen, Worth, Baxter, Durose, Redfern and Haynes.

Once again we appear before the public in print after a brief lapse owing to time, ink and paper. The above report covers quite a busy period, namely, the Blackpool Party and the King's Cup Scramble. Mr. Martin, who represented the club in the last-mentioned event, thanks to Mr. Harold Ashworth, our first private owner, who kindly lent his Avian, had the misfortune to have a serious leak in the petrol tank, necessitating frequent landings to re-fuel between controls. On reaching Southampton, the tank had to be changed owing to the excellent porous qualities developed at that stage. We have to congratulate Messrs. Taylor, Hatton and Shipside on achieving their first solos in excellent style, and we trust all beginners will continue to practise continuous landings and figures of eight in their early stages. Our membership continues to increase steadily, and when we get into our new home we can look forward to great happenings. At the moment we have only one kite available as SK is being airworthy, but it should be ready by the time these notes appear. This kite, by the way, has done 400 hours on club work since October last, being used for dual and solo.

YORKSHIRE AEROPLANE CLUB

REPORT for fortnight ending July 21.—Flying time: 76 hrs. Instruction: 24 hrs. 40 mins. Soloists: 43 hrs. 35 mins. Passengers: 7 hrs. 45 mins.

Instruction (with Captain Beck): Miss Ellison, Messrs. Lievans, Wilton, Parks, Ostler, Marriott, Arundel, Rowley, Pomeroy, Daly, Lloyd, Dujardin, A. Crowther, Fittin, Jackson, Batcock, Collins, Shires, Leatham, Senior, Watson, Lupton, Ambler, Brown.

Soloist: Mr. Brown.

"A" Licence Pilots: Messrs. Clayton, Thomson, Ambler, Humpheries, Norway, Wilson, Ostler, Lax, Lister, Ely, Birch, Ellison, Wood, A. Crowther, H. Crowther, Dawson, Reynolds, Dick.

"B" Pilot: Mr. Fielden. Passengers: 27.

Included in the above flying times is our record week of 48 hrs. 50 mins., but during the latter week we have been reduced to one machine, RF having completed its time for C. of A., and TB having run a master connecting rod as a result of the heat wave.

On Friday, July 20, some 2,000 people visited the Aerodrome to watch the King's Cup machines on their way North.

FROM THE FLYING SCHOOLS

Henderson Flying School, Brooklands Aerodrome

REPORT for week ending July 26.—Total flying time: 43 hrs. 30 mins. Dual with Col. G. E. P. Henderson: Messrs. Moursi, Guinness, Murrier, Eastern, Du Cane, Daniels, Miss Chapman.

Dual with Capt. H. D. Davis: Mrs. Scott, Miss Chapman, Messrs. Richardson, Dr. Taylor, Daniels, Stewart, Oldmeadow, Matos, Preston, Elton, Hill, Miss Welby, Mrs. Monkton, Bennett, Hamilton.

Solo: Messrs. Anderson, Hill, Swan, Du Cane, Hamilton.

Mr. Du Cane and Mr. Swan have now passed all their tests for their R.A.C. licences.

Dr. Wall's Anzani Avro has proved a very successful machine, and its average climb in teaching pupils to turn is round about 7,000 ft. in 30 mins. The machine is exceptionally light to control, and is rather like a Moth to fly.

300 passengers were carried during the week on our joy-riding machines.

THE BRITISH EMPIRE LEAGUE TAKES A HAND

ON Thursday last week a luncheon was given by the British Empire League, at the British Empire Club, to Sir Alan Cobham, the chair being occupied by the Viscount Elibank. A particularly representative number of guests was present and considerable enthusiasm was shown towards helping the future of Empire aviation.

The Chairman, in proposing the health of Sir Alan, after a sympathetic reference to the regrettable death of Mr. Warwick in the King's Cup Race, said that he thought the gathering which had come together to honour Sir Alan Cobham was very suggestive of the interest taken by the Dominions in aviation, and embraced, in individuals, the whole of the world, both with regard to knowledge and experience of the requirements of the Empire. Three years ago Sir Alan was entertained by the Club before he set out to and round Africa—what Sir Alan then termed an ordinary proceeding of life—and he could only say, in spite of this modest view, since then no one had been able to emulate it. In 1924 he flew with Sir Sefton Brancker to Rangoon and back, 17,000 miles, in 1925 to Cape Town and back, 17,000 miles, in 1926 to Australia and back, 28,000 miles, all with the same engine, and in 1927-28 his more recent flight was round South Africa, 21,000 miles, plus about 2,000 more round England to wind up with—a total of 85,000 miles. All this beyond his previous great mileage. What did this mean to business men? Speaking for himself, last year it took him one month to go to Malaya and one month to get back. He would have welcomed any form of transport which would have got him there and back in fourteen to twenty-one days, and that aviation could do. He then referred to an article in *The Times* that day in regard to the development of aviation in South Africa, in which it was particularly emphasised, the efforts being made by the Belgians and French, who were very active for political purposes in aviation, whilst England was practically standing still. They had watched for the past year Germany and Belgium developing their aviation in every direction, particularly Germany in plastering the whole of Europe with great air routes, and Italy establishing a great air-fleet. And now we found France and Belgium doing the same thing in our own colonies and our own spheres, assisted by Government subsidies, open and publicly; but beyond this there was no question there were secret subsidies which enabled their people to go far ahead of Britain in getting forward in aviation in these vast possessions of ours. He hoped that our own Government would recognise this position and not hesitate to put up money, if only a few millions, to fight this unfair competition. Our air transport and organisation required more funds to enable them to help forward our aviation industry, which was vital to the future of the entire Empire.

Sir Alan Cobham, in replying, said that in 1924 his flight with Sir Sefton Brancker to Rangoon was really the start of these test flights, and it was only possible to carry it through by obtaining from all sorts of sources the wherewithal to pay for the expenses, £1,775, but it was got together and carried through successfully. He said that in comparison to flying, motoring was a nerve racking business. As far as he was concerned the risks of road traffic, in fact, appeared to be too great for him. He preferred the air. Sir Alan then made sympathetic reference to the great help in his flying-boat enterprises which he had received from Mr. Robert Blackburn and Mr. Oswald Short and others, without which he could not have accomplished what he set out to do. Following preliminary experiments up the Nile and back before undertaking the bigger flight, there they found that many troubles they had anticipated did not materialise, but on the other hand they encountered many snags which they had never anticipated, and from these they obtained the most valuable experience. He then sketched in detail his views as to the most advantageous route to be followed for development of an all-British air route through Africa, enabling this red line ultimately to obtain the entire European through traffic, a proposition

which would result in prosperity almost beyond the dreams of avarice, in addition to opening up the entire surrounding country. He thought that Egypt itself as a tourist country was played out. What the traveller now wanted was to go farther afield and this was the chance for them to support the air line through Central Africa. When that air route was established it would bring money into the country, create a huge business and invite solid investment from the enterprising capitalist. This in addition to the huge saving in time and expenses in official representatives travelling from point to point. It also meant employment of British labour to build the machines which would necessarily be employed; a contrast to the motor-car expeditionary enterprises which opened up unknown country for America to reap the benefit in supplying the vehicles afterwards. What Britain did now in securing this great harvest would save the country more than ten times the cost which would have to be paid in ten years' time. The point was we should do it now before others got in and forced our hands. In Australia was to be found a very fine example, and the same in Canada. They were opening out trunk air-routes throughout their vast territories before others got hold of the future business. Surely it was worth our while to ear-mark a couple of hundred thousand a year for the same purpose for Britain to obtain control of the various Imperial air routes before they were monopolised by foreign countries with more foresight and enterprise.

The toast of "The Chairman," proposed by Major General J. E. B. Seely, closed a very happy reunion.

Amongst those who accepted invitations to be present were:—

The Rt. Hon. F. A. Anglin (Chief Justice of Canada), the Hon. W. C. Angwin (Agent-General for Western Australia), Sir Frank Baddeley, K.C.M.G. (Chief Secretary to the Government of Nigeria), General Sir George Barrow, K.C.B. (G.O.C., Eastern Command, India), Sir Cecil Beck, Dr. Wm. R. Bisschop, Mr. Robert Blackburn, Maj. Sir A. Boyd-Carpenter, M.P., Air Vice-Marshal Sir Sefton Brancker, K.C.B., Capt. W. Brass, M.P., Mr. A. L. M. Budd, Mr. C. St. Callingham, Mr. Gordon Cameron, Lt.-Gen. Sir J. Chancellor, G.C.M.G. (Governor and Commander-in-Chief, Southern Rhodesia), Mr. C. A. Chidell, the Hon. Sir J. A. Cockburn, K.C.M.G., Mr. Taylor Darbyshire, Mr. M. B. Davy, Sir W. H. Daw (Hon. Treasurer, British Empire League), Sir E. B. Denham, K.B.E. (Colonial Secretary, Kenya Colony), Mr. J. H. Dimond (South African Trade Commissioner in London), Mr. S. H. Dotterill, Lt.-Col. Ivo Edwards, Mr. J. E. Evans-Jackson, Mr. A. A. C. Finlay (Assistant Director, Gold Coast Colony, Government Intelligence Bureau), Mr. J. F. M. Frandsen, Col. W. H. Franklin, C.B.E. (Commissioner for H.M. Eastern African Dependencies Trade and Information Office, London), Sir Francis Fuller, K.B.E., the Hon. Sir George Fuller, K.C.M.G. (Agent-General for New South Wales), Mr. S. G. Gamble, Lt.-Col. A. H. Gault, D.S.O., Mr. Victor Gordon, C.M.G. (High Commissioner for Newfoundland), H. E. Sir Wm. Gowers, K.C.M.G. (Governor and Commander-in-Chief, Uganda Protectorate), Mr. H. Greenfield (Agent-General for the Province of Alberta), Capt. the Rt. Hon. F. E. Guest, C.B.E., Admiral Sir H. King-Hall, K.C.B., the Hon. J. A. Hanan, M.L.C. (New Zealand), Mr. John Howard (Agent-General for Nova Scotia), Surg.-Col. W. Culver James, M.D., Col. W. Jarvis, C.M.B., Capt. R. W. Leckie (Sec., British Empire Club), Maj. Sir Humphrey Leggett, D.S.O., Lt.-Col. J. H. Levey, D.S.O. (Director, Gold Coast Colony, Government Intelligence Bureau), Mr. W. F. Lloyd, Maj. J. A. Macdonald, the Hon. Sir Thomas Mackenzie, G.C.M.G. (New Zealand), Col. C. E. Merrett, V.D. (President, British Empire League in Australia), Maj.-Gen. Sir Newton-Moore, K.C.M.G., Lt.-Col. E. Murray, O.B.E. (Sec., British Empire League), Air Vice-Marshal Sir Godfrey Paine, K.C.B., the Hon. F. A. Pauline (Agent-General for British Columbia), Mr. G. K. Peto, C.B.E., Lt.-Col. R. E. Snowden (Agent-General for Tasmania).

The British Empire League's Recommendations

IN connection with the above function, and following on suggestions made by the Chairman, Viscount Elibank, Sir Alan Cobham, and Maj.-Gen. Seely, the Council of the British Empire League have made the following recommendations to the Government:—

1. That all assistance should be given to Sir Alan Cobham in materialising his scheme for an "all red" flying route round and through Africa, and that for this purpose his Majesty's Government might well be urged to subsidise this air line.
2. That Franco-Belgian interests are very active in promoting air routes

in Africa for strategical and political purposes, quite apart from commercial purposes, and unless early steps are taken to materialise the scheme being promoted by Sir Alan Cobham, Franco-Belgian flying interests will get ahead of British flying interests in Africa, the greater part of which territory is of special concern to Great Britain and the Empire.

3. That the British aircraft industry and the British air lines do not receive the same financial assistance from the British Government as do the aircraft industries and air lines of other foreign nations.

4. That the open subsidies paid by foreign Governments are greater than those paid by the British Government, while foreign nations also subsidise indirectly.

5. That his Majesty's Government should vote a sum of from £1,000,000 to £2,000,000 per annum for the next five years for the special purpose of assisting British aircraft industry and British air line development.

AIRISMS FROM THE



FOUR WINDS

Another London-Cape Flight

ANOTHER light 'plane flight to the Cape started from Croydon on July 29, when Lieut. P. Murdock, of the South African Air Force, set out in an Avro "Avian" at 5 p.m. for Lympne for an attempt to fly to Cape Town in record time. One feature of the flight will be to demonstrate the possibility of flying over the Sudan during the rainy season. We understand that before his departure Lieut. Murdock consulted Sir Alan Cobham regarding the flight. Early on July 30 he proceeded from Lympne and reached Marignan aerodrome, Marseilles, at 2.25 p.m. He left again next morning for Catania, Sicily, where he arrived at 5.35 p.m.

Light 'Plane Lands on Jungfrau

PILOTED by Capt. Wirth, a Klemm-Daimler light 'plane landed on the Jungfrau ridge on July 24. Capt. Wirth flew from Thun, and made a perfect landing on the ridge, where he met with an enthusiastic reception from a party of British and other tourists assembled there to meet him. On July 26 he succeeded, in spite of a strong wind, in taking off from the ridge, and flew to Lausanne.

Atlantic Flight Failure

MR. BERT HANSELL and Mr. Parker Cramer set out from Rockford, Illinois, on July 26, in an attempt to fly to Stockholm, via Greenland. They were in the air for barely half an hour, however, when the machine—which was carrying some 400 gallons of petrol—crashed into a maize field, and was badly damaged. The airmen escaped injury.

Crash Terminates Rome-Brazil Flight

WHEN Capt. Ferrarin and Maj. del Prete, who recently made a non-stop flight from Rome to Brazil, proceeded to continue their journey on July 30—after having repaired

the slight damage sustained when landing near Port Natal—they met with an unfortunate accident. The Savoia Marchetti S64, when landing on the beach at Port Natal, struck a soft patch and overturned. While the airmen escaped injury, the machine was completely wrecked.

Poland-Baghdad Flight Ends in Disaster

A FINE non-stop flight from Poland to Baghdad came to an unfortunate conclusion on July 31. A three-engined (Wright "Whirlwind") Fokker monoplane piloted by Lieut. Kalina and carrying Lieut. Czalas and a mechanic, left Lublin on July 30 on a non-stop flight to Baghdad, thence to Cairo and back to Warsaw. The machine arrived over Baghdad at about 2 a.m., and circled over the town, the pilot apparently waiting for daylight before attempting to land—although the R.A.F. set out landing flares. Some 3 hours later, in the half light of dawn, they came down to land, but in doing so the machine struck the flood protection bank surrounding the aerodrome, and turned over. The R.A.F. rendered prompt assistance, but Lieut. Czalas sustained a fractured skull and died shortly afterwards. Lieut. Kalina and the mechanic escaped with slight injuries, and received treatment at the R.A.F. hospital.

Another Polish Fatality

DURING a flight over the Kalisz district on July 30 two officers of the Polish Air Force lost control of their machine and crashed, both being killed.

A D.H. 50 "Jupiter" in Queensland

A NEW D.H. 50 aeroplane, fitted with a "Bristol" Jupiter engine, acquired by the Queensland and Northern Territory Aerial Services, Ltd., was recently christened by Lady Goodwin, wife of Sir John Goodwin, Governor of



AN ECHO OF THE SAN FRANCISCO FLIGHT : An aerial view of Eagle Farm Aerodrome, Brisbane, showing the Fokker monoplane "Southern Cross," in which Capt. Kingsford Smith, Mr. C. Ulm, Lieut. H. W. Lyons, and Mr. J. Warner flew from San Francisco to Australia across the Pacific. The photograph was taken immediately after their arrival on June 9.

Queensland, and was given the name of "Hermes." Speeches regarding the great advantages of the opening of an aerial service in Queensland were made and the usual bottle of wine was broken on the propeller boss. Sir John and Lady Goodwin, accompanied by Maj. Wolfe and Mr. A. E. Coldham, made an extended flight over the Longreach district. This was the first ascent made by the Governor and Lady Goodwin, and they expressed themselves as delighted with the experience. Very soon after the "Hermes" was put into service an urgent call was received from Tanbar station on Coopers Creek near the South Australian border, for a machine for ambulance purposes. The "Hermes" was speedily fitted up as an ambulance plane, and the 230-mile trip from Longreach was completed in exactly two hours. The patient, who was suffering from a paralytic stroke, was placed in the machine, and within 2 hrs. 30 mins. was in Longreach private hospital. This humanitarian work for which aircraft can be employed, has created a very favourable impression in Queensland.

Autogiro to Tour England

THE Cierva Autogiro "Gyroplane," which took part in the King's Cup race, is to make a tour of England this month. It will be piloted by Mr. A. C. H. A. Rawson, and, using Northolt aerodrome as a base, tours will be made as follows: August 7: Sutton's Farm, Hadleigh, and North Weild. August 8: Norwich, and Bircham Newton. August 10: Wittering, Nottingham, and Cranwell. August 11: Henlow, Birmingham, and Upper Heyford.

The Elsie Mackay Fund

THE Chancellor of the Exchequer has made the following announcement:—

"Lord Inchcape, being desirous that the Elsie Mackay Fund of £500,000 given by him and Lady Inchcape and their family to the nation should not be the occasion or object of any complaint by other sufferers from the disaster in which his daughter lost her life, has placed at the disposal of the Chancellor of the Exchequer a further sum of £10,000 from his own property to be applied for the purpose of meeting any complaint in such manner as the Chancellor of the Exchequer in his absolute discretion may think fit. The Chancellor of the Exchequer has handed the sum of £10,000 to the Public Trustee for administration accordingly."

Agents Wanted

RELIABLE agents in all countries, who already handle aviation material and are in touch with the Military Air Service and aircraft industry; are required to handle the Garelli "Aviocompressor." This is a new apparatus for starting large aero engines or similar power plants, and for operating a wireless station. Any reader of FLIGHT who may

Supermarine "Southampton" for Japan

TESTS have just been completed at Southampton with an all-metal flying-boat to the order of the Imperial Japanese Navy. The aircraft, reference to which has already been made in FLIGHT, is one of the Supermarine-Napier "Southampton," similar to the Royal Air Force machines which recently flew in formation from England to Australia, and is fitted with two Napier engines, each developing 500 h.p.

The machine is being shipped to Japan this week, and exhaustive trials will be carried out in Japan, when a decision will be made as to how many more of these British craft will be ordered.

Twenty Years Ago!

Extract from "The Aero." (Precursor of "Flight"), Aug. 1, 1908.

"The Bleriot Accident.—M. Bleriot, whose trials with his monoplane have been evoking so much interest in aeronautical circles, met with a serious accident on Friday of last week, but miraculously escaped without personal damage. His machine, however, was practically smashed to pieces after suddenly plunging to earth from an altitude of about 30 ft. All M. Bleriot's experiments have certainly gone to show that the monoplane type of flying machine is very tricky to handle in its present state of development, and the unpleasant culmination to his flight on Friday was a somewhat sensational reminder of the fact. . . ."

be interested should communicate with—Soc. An. Moto Garelli, Post Box 287—Milan, Italy.

Air Mail Leaflet

THE Postmaster-General announces that a Correction Notice No. 1 amending the Air Mail Leaflet (May, 1928, edition) has been issued, and may be obtained on application at any Post Office. The Notice gives particulars of new air mail services to Persia *via* Russia (by air throughout), and in Peru, and of extensions of the insurance service to Holland and Switzerland. The air parcel rates to Colombia have been revised and in some cases reduced.

The Royal Air Force Memorial Fund

THE usual meeting of the Grants Sub-Committee of the Fund was held at Iddesleigh House on July 26. Mr. W. S. Field was in the chair, and the other members of the Committee present were Mrs. L. M. K. Pratt-Barlow, O.B.E., Sqdn.-Ldr. Douglas Iron, O.B.E. The Committee considered in all 12 cases, and made grants to the amount of £105 7s.

The next meeting was fixed for August 9, at 2.30 p.m.

SPORTS AT SHORTS

ON Saturday, July 28, an interesting sports meeting was held by the employees of Messrs. Short Bros., Seaplane Works, Rochester. The tree-fringed Paddock Playing Fields of the King's School, Rochester, was lent for the occasion by the Rev. W. Parker, headmaster. Ideal weather prevailed, following overnight rain. A large audience were entertained by a varied athletic programme, ably judged and refereed by many well-known members of the management and staff, including—to mention but a few—Messrs. H. O. Short, A. E. Short, L. O. Short, F. S. Short, J. L. Parker, W. P. Kemp, J. H. Wood, A. E. Bibby, A. Gouge and P. M. Jones.

Closed events contested by employees of Short Bros. included 100 yards handicap, throwing the cricket ball, obstacle race, long jump, high jump, sack race, 220 yards handicap, 880 yards, tug-of-war, 150 yards handicap (over 30 years), 100 yards hurdles, one mile inter-shop relay, three-legged and wheelbarrow, tilting the bucket, ladies' egg and spoon, ladies' 100 yards, and last but not least a ladies' ankle competition.

Well-contested events resulted in the tug-of-war being won by the bus shop and relay by the engineers' shop.

The "Victor Ludorum" for best all-round athlete was won by L. W. Pateman, this carrying with it the honour of a medal presented by the Chief Constable of Rochester. Mr. A. S. Arnold. L. W. Pateman figured prominently in high jump (1st), 220 yards (2nd), hurdles (3rd), and long jump (2nd).

This very promising young athlete is a younger

brother of J. T. Pateman, who had won this medal for the four previous consecutive years. A feature of the hurdles was the defeat of L. Stedman by A. K. Thomas, after having won this event for six years, contesting the Lankester Parker Challenge Cup. L. Stedman was this year hurdling with a 10 yards handicap.

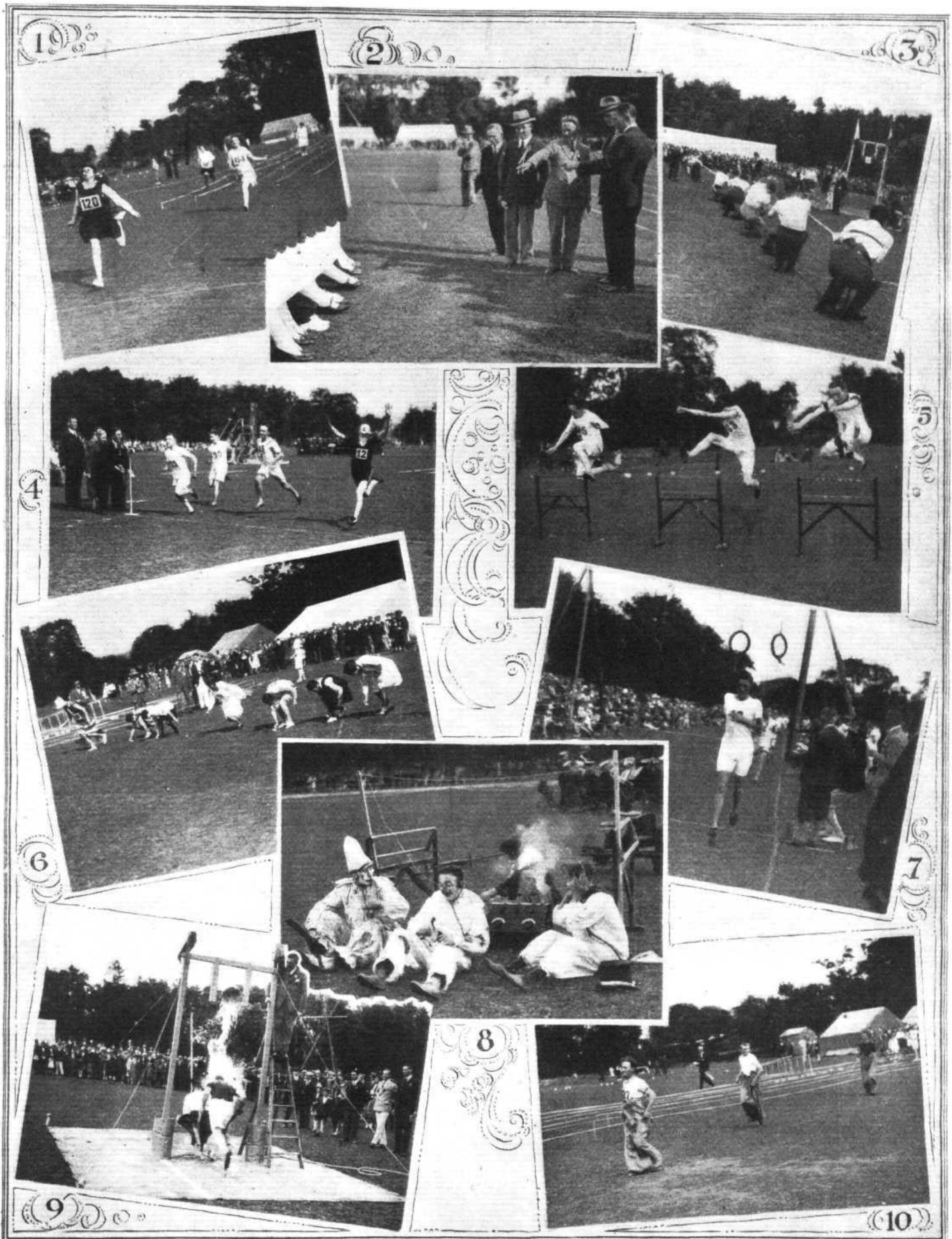
Special mention is worthy of the ankle competition, this being judged jointly by Messrs. H. O. Short and J. L. Parker, who were quite evidently qualified for the post, while studying the many ankles submitted with an eye to "streamline" design worthy of a famous aeronautical engineer and an equally famous test pilot. Miss Weihe was awarded the first prize with an ankle that brought the judges down in a "flat spin."

Open events included 100 yards, 440 yards, one mile, one mile relay, and 100 yards races for elementary schoolboys and girls for the two "Aero" Cups presented by Messrs. Short Bros., Ltd.

100 yards and one mile were both won by representatives of the Royal Engineers, Chatham; 440 yards by H. Barnsley, of the Hussars, Shorncliffe; and the mile relay by the City of Rochester A.C. in a field of nine entries.

At the conclusion Mr. A. Craig called upon Mr. H. O. Short to present the prizes, valued at £100, and the many cups included those presented by members of the firm, Messrs. Rolls-Royce and Maj. Gnospelius.

A most successful meeting closed with cheers for Mr. H. O. Short by all present.



[“FLIGHT” Photographs]

SPORTS AT SHORT'S: The Sports Club of Short Brothers held its annual sports at Rochester on Saturday last. Our photographs show : 1, Miss W. Reed winning the 100 yards flat handicap (ladies) closed. 2, Mr. Oswald Short judging the “streamlining” of ladies’ ankles, assisted by Mr. J. H. Wood and Mr. A. E. Bibby. 3, Tug-of-war (bus shop v. maintenance). 4, Finish of the 100 yards open final. Left to right, R. W. Bradley, J. Hill, F. W. Whitney, L. Caulfield. 5, The 100 yards hurdles handicap final for the Lankester Parker challenge cup. Left to right, A. K. Thomas, L. W. Pateman, C. L. Woodbine. 6, Start of ladies’ egg and spoon race. 7, Finish of one mile open race. L. Blackborrow first. 8, Clowns “listen-in” 9, Tilting the bucket. 10, In the Sack race.

CIVIL AVIATION IN PARLIAMENT

SOME interesting points were raised in the House of Commons on July 30 during the discussion on the Vote of £415,000 for civil aviation. Capt. Guest, who opened the discussion, said while the attitude of the Air Ministry was now decidedly friendly towards civil aviation, there was still little to show in results, and other countries were doing far more. He held that the development of civil aviation was essential for defence, and the cheapest defence would be the stimulation, side by side with the military effort, of a large development of civil aviation as a potential reserve in war. Capt. Guest pointed out that the prospect of linking up North and South Africa by air with all its British Dependencies, was likely to be filched from us by another country, and referred to the activities of Belgium in the Congo, and to the proposed agreement, between that country and France, to link up the Mediterranean with Central Africa.

In the opinion of Mr. Garro-Jones, Great Britain had by no means secured her proper place in regard to civil aviation, and had to take the seventh place in the development of commercial aviation—even smaller countries like Holland being ahead of Great Britain.

That civil and military aviation should be kept separate was the opinion of Lieut.-Col. Moore-Brabazon. The question of war coming in connection with civil aviation, he thought, prevented many potential friends giving it the support which they would otherwise do.

Mr. L'Estrange Malone said that more money ought to be devoted to experimental work in aeronautics, and encouraging our aircraft constructors to try out new designs, while Mr. Hore-Belisha thought the reason why the development of civil aviation was so slow in this country was that, like broadcasting, it was in the hands of a monopoly.

A passenger and mail air service between Southampton, London, Liverpool, Glasgow and Belfast was suggested by Sir R. Lynn, and another suggestion, put forward by Rear-Admiral M. Sueter, was that the Secretary for Air should organise a big aviation exhibition, together with an Imperial Air Conference, in London next year.

Sir Henry Brittain asked the Secretary for Air to see that we were put in our right place on the map and in the air in the future—it was, he said, a farce that we should possess so few machines in comparison with France and Germany.

Sir S. Hoare, Secretary of State for Air, replying, said the Air Ministry had three aims which they were trying to achieve in the development of the civil side of aviation—one, to diffuse over the country a knowledge of air questions and a general interest in flying; another, to make the civil air lines economical and self-supporting; and thirdly, the development of Imperial air communications. Regarding the first, the country as a whole was much more keenly air minded now than it was four or five years ago, as was demonstrated in the development of light aeroplane clubs, which had done more to stimulate interest in air questions than anything else. They had created a demand for light aeroplanes, and several members had made distant and adventurous journeys to Australia and South Africa, whilst the number of civil pilots had greatly increased.

It was the Government's aim, he said, to make civil aviation economically self-supporting, and while civil aviation could be of great use in various ways, whether self-supporting or not, it was essential that sooner or later it must be free of Government subsidy.

During the last three years the actual tonnage carried by the Imperial Airways Company had risen by 66·3 per cent., and the load factor had risen from 60·23 per cent. to 66·27 per cent., whilst the insurance premium paid in respect to Imperial Airways machines had fallen from 20 per cent. to 10 per cent., even under the worst conditions. British civil aviation had been making quite definite progress during the last three years, and, so far from being criticised, was being held up as an object of admiration. We were on the high road to making civil aviation self-supporting.

As regards long distance Imperial air routes, he had been criticised for going slowly; he pointed out, however, that

they would have had the London-India route in actual operation months ago, but for difficulties that had arisen between one or two foreign countries. During the past 12 months he had given considerable and careful attention to the difficulty which had arisen with the Persian Government in connection with the right to fly over the Persian section of the route. He was in constant conversation with the Persian Government, and he saw no reason why the route should not be running to scheduled time next April, and was hopeful that an arrangement would be arrived at equally satisfactory to Persian and British interests. He had made a start with the India route, but once that was in full operation they would turn their attention principally to the Cape to Cairo route.

Already Sir Alan Cobham had been asked to present proposals, and he was also in touch with the Colonial Office and the Governments concerned on the route, and as soon as he had got the data he would see whether before the end of this Parliament they could not make a start with that great Imperial route.

On the question of subsidies, Sir Samuel said it was better to subsidise one company rather than a number of companies, and progress had been much quicker by that method than it would have been under the scheme of subsidising numerous small companies which existed before Imperial Airways came into being. He was, however, prepared to consider the best proposals from whatever source they came, but the best course in his view was for the various interests concerned to get together and put up a concerted proposal, and he would then see whether he could obtain the necessary subsidy.

Should, at any time in the future, the British taxpayer be called upon to pay a subsidy for an Imperial air route, then the Governments concerned along the route must take their full share and only call upon the British taxpayer to make up the deficiency—he hoped, a small one.

Referring to the airship programme, Sir Samuel said this was an integral part of the civil aviation problem. Should the airships prove successful they would have gone far to solve the long-distance non-stop Imperial air routes, and would avoid certain difficulties which had held them up on aeroplane routes. The airship programme was developing not unsatisfactorily, and the two airships (R.100 and R.101) would be ready for flight at very much the dates he had previously given to the House. As soon as they had done their home trials they would start trials to more distant places.

Regarding an air service in the West Indies, Sir Samuel said he would like to see one started, but the expenditure for such a service should fall mainly on the West Indian Government. He would also be glad to look into the suggestion of a flying-boat service between Southampton and Belfast, and should such a service be established, it was reasonable to expect some financial assistance from Belfast and the Government of Northern Ireland. If a proposal for this service were put forward, he would be prepared to lay it before Imperial Airways or other suitable organisation.

In his concluding remarks, before the Discussion was adjourned, Sir Samuel said, although he would have liked to have seen larger sums devoted to civil aviation during the last three or four years, we had not done so badly. We were now going to emerge on a period of definitely greater activity. We had the data on which we could base our plans for further progress. The agreement which he had recently signed with the Imperial Airways Company was based on the data of the experience of the last three or four years. The first of the main principles on which the agreement had been drawn up was a concentration on long-distance Imperial lines rather than short-distance European lines. A very important point in the new agreement was that the Air Ministry stipulated that the company should have an obsolescence clause under which its machines would become obsolete at a much quicker rate than heretofore. We had now got to the point where we could say clearly that, after possibly two or three more changes from the present types of machines, the machines would be covering expenses and civil aviation would be actually self-supporting.

Australian Aerial Services' Good Record

ON June 4 last the air mail and passenger service operated by Australian Aerial Services, Ltd. ("Lasco"), whose headquarters are situated at the Melbourne Aerodrome, completed its fourth year of operations. Inaugurated in June, 1924, the service was increased in July, 1925, by two "feeder" routes (one from Melbourne to Hay and one

from Broken Hill to Mildura), both time-tables interlocking with the through air line from Adelaide to Cootamundra. The company's fleet, comprising single-engined machines of post-war design, has now flown 600,692 miles with 9,287 passengers, without a fatality. This distance is equal to 24 flights around the world at the equator, or nearly three flights to the moon!

THE ROYAL AIR FORCE

London Gazette, July 24, 1928

General Duties Branch

The short service commn. of Pilot Officer on probation H.M.S. Barnard is terminated on cessation of duty (July 25). The following Pilot Officers on probation are confirmed in rank (July 1):—B. D. Nicholas, L. W. W. Modley, N. H. Fresson, F. G. Ferrier, A. M. Stevens, D. I. Stewart, W. R. M. Higgs, D. Dickson, A. T. C. Hazledine, M. G. Bircham, T. L. Harrison, R. W. A. Stroud, A. L. T. Naish, M. G. R. Harris, R. W. P. Collings, D. G. P. Fitzpatrick.

Medical Branch

The temp. commn. of Flying Officer S. McC. Craig (temp. Lt., Gen. List, Army, Dental Surgeon) is terminated on relinquishment of his Army commn. (May 2).

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The following are granted commns. in Class AA (ii) as Pilot Officers on probation:—J. W. Carmichael, J. O. Mortlock (July 9); M. J. R. Alderson, H. T. Edgecombe, D. R. Gray, G. J. E. Howard, A. D. Moore (July 10); S. R. Herringshaw, G. Leggatt (July 11); T. H. W. Beadle, F. C. Fisher, F. G. Hill, N. F. Marsh (July 16).

The following Pilot Officers on probation are confirmed in rank:—Class A.A. (ii).—B. F. Cox (July 18). Special Reserve.—D. G. Allison, R. H. Maw, T. H. Worth, M. E. Morris (May 30).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Flight-Lieutenants: L. C. Wynne-Tyson to Home Aircraft Depot, Henlow, 29.6.28. F. L. Pearce, to No. 440 Flight, 13.7.28.

Flight Lieutenants: W. M. M. Hurley to No. 14 Sqdn., Middle East, 10.7.28. H. R. B. Howell, to No. 1 Sch. of Tech. Training (Apprentices), Halton, 3.8.28. W. Wynter-Morgan, M.C., to R.A.F. Depot, Uxbridge, 30.6.28.

Flying Officers: J. M. Fearon, to No. 2 Flying Training School, Digby, 14.7.28. L. T. Pankhurst, to Home Aircraft Depot, Henlow, 23.6.28.

Flying Officers: W. T. Holmes, to Elect. and Wireless Sch., Flowerdown, 23.6.28. J. E. McC. Henderson, to R.A.F. Depot, Uxbridge, 23.6.28. H. R. Bardon and J. A. Hawkings, to Home Aircraft Depot, Henlow, 23.6.28. E. B. Steedman, to Sch. of Army Co-operation, Old Sarum, 26.7.28. M. F. Morris, to R.A.F. Depot, Uxbridge, 1.8.28. J. S. Blomfield, to No. 1 Sch. of Tech. Training (Apprentices), Halton, 1.8.28. K. C. Garvie, to No. 55 Sqdn., Iraq, 30.6.28. C. E. Eckersley-Maslin, to Aircraft Depot, India, 2.7.28. F. H. Bailey, to R.A.F. Depot, Middle East, 5.7.28.

Pilot Officers: A. G. C. Somerhough, to No. 440 Flight, 13.7.28. H. Box, to No. 7 Sqdn., Worthy Down, 26.7.28. F. T. K. Bullmore, to R. A. F. Depot, Uxbridge, 18.6.28. G. Fachiri, to No. 45 Sqdn., Middle East, 2.7.28. C. E. V. L'E. Feasey, to No. 55 Sqdn., Iraq, 25.5.28. A. P. Miller and V. S. W. Smyth, to R.A.F. Depot, Uxbridge, 26.6.28.

The undermentioned Pilot Officers are posted to No. 2 Flying Training School, Digby, with effect 14.7.28: J. R. Ayling, T. F. Balfour, R. L. Bennet,

Flying Officer P. Wilson is transferred from Class A to Class C (May 1). The following Flying Officers are transferred from Class B to Class C:—S. P. Scott (Feb. 26), E. McL. Cleland (March 11), G. W. Mahony-Whitton (July 25).

Flying Officer J. C. Dunbar relinquishes his commn. on completion of service (July 22); Flying Officer P. L. Sant relinquishes his commn. on account of ill-health, and is permitted to retain his rank (July 25).

Stores Branch

Squadron Leader J. C. E. Gillham relinquishes his commn. on completion of service (July 24).

Medical Branch

Flight-Lieut. W. D. Miller, M.B., is transferred from Class D2 to Class D1 (May 15).

AUXILIARY AIR FORCE

General Duties Branch

No. 601 (COUNTY OF LONDON) (BOMBING) SQUADRON.—Flight-Lieut. R. A. Grosvenor, M.C., reverts to rank of Flying Officer at his own request and is granted honorary rank of Flight Lieutenant (July 24).

No. 603 (CITY OF EDINBURGH) (BOMBING) SQUADRON.—The following to be Pilot Officers:—A. H. Bruce (June 9), M. H. G. White (June 25).

No. 605 (COUNTY OF WARWICK) (BOMBING) SQUADRON.—The following Pilot Officer to be Flying Officer:—C. L. Knox, V.C. (May 23).

A. K. H. Binley, J. H. Brown, R. J. Clare Hunt, J. C. L. Claxton, A. G. Cole, R. H. Coupe, N. W. A. Cullum, S. A. Davis, F. C. Edney Hayter, R. C. W. Ellison, W. C. Garrett-Petts, D. L. Iremonger, J. M. Israel, E. G. James, G. W. J. Jarrett, G. R. O'C. Lempriere, C. N. McLoughlin, J. G. Reiss, J. D. Robertson, H. E. Sales, I. M. Smith, R. H. Spurrer, W. G. Stevenson, K. G. Vandyck, P. C. Wilkin, and F. K. Wood.

Pilot Officers: G. H. G. S. Jenkins, to No. 60 Sqdn., India, 28.6.28. D. B. McGill to No. 1 Flying Training Sch., Netheravon, 30.8.28.

Stores Branch

Flying Officers: H. E. Young, to No. 19 Sqdn., Duxford, 23.7.28. J. McCarthy, to H.Q., Inland Area, 18.7.28. E. A. Burridge to No. 14 Sqdn., Middle East, 13.7.28.

Accountant Branch

Flying Officer: J. L. Armstrong, to R.A.F. Station, Kenley, 25.7.28.

Medical Branch

Squadron Leaders: J. Rothwell, M.B., to H.Q., Iraq, 13.7.28. D. G. Boddie, M.B., to C. & M. Party, Basrah, 1.7.28.

Flight Lieutenants: L. I. Hyder, to No. 84 Sqdn., Iraq, 1.7.28. J. Hill, M.B., to C. & M. Party, Basrah, 1.7.28. E. P. Carroll, to R.A.F. General Hospital, Iraq, 28.6.28.

NAVAL APPOINTMENT

The following appointment has been made by the Admiralty:—Lieut. (Flying Officer, R.A.F.).—J. H. I. Wood, to *Furious* (July 1).

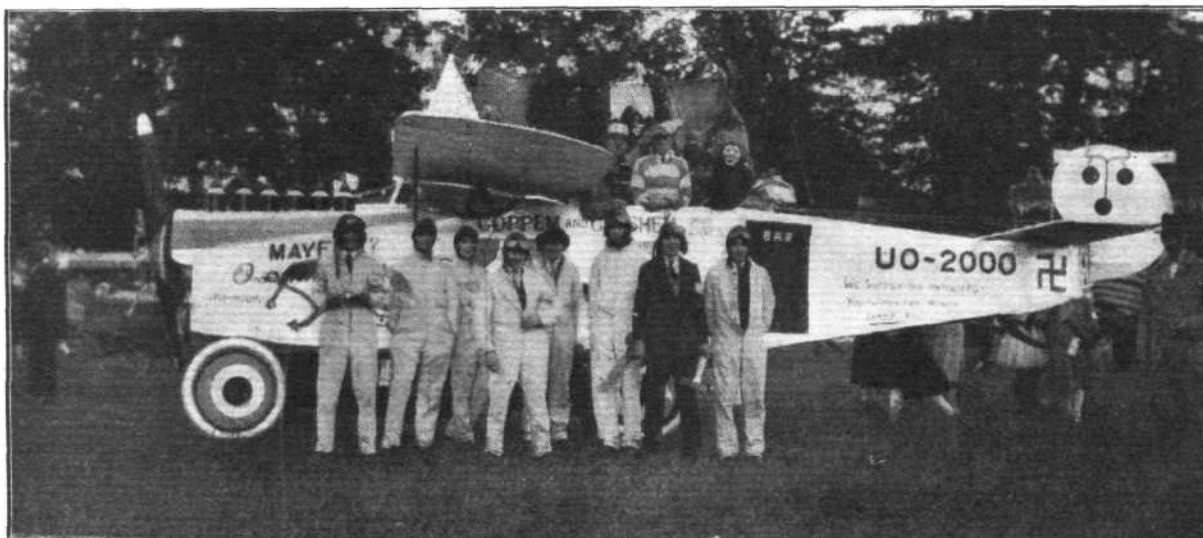
Vacancies for Stores Officers—Royal Air Force

The Air Ministry announces that about 10 vacancies for permanent commissions in the Stores Branch of the Royal Air Force will be offered for competition among young men of between 23 and 25 years of age, who have had not less than five years' business experience in a firm of standing. This will be the third competition under the scheme inaugurated in 1926 for the purpose of obtaining men with a business training to control and administer the supply of the highly valuable and complex equipment of the Royal Air Force. From among those who apply a limited number of candidates will be selected to proceed to the examination, which will be held in London in the latter part of October, 1928, and will consist of two parts, an interview before a board and a written examination. The written examination will be of such a character that men of good general education can take it without special study.

Accepted candidates will be gazetted to commissions as Pilot Officers

on probation and will receive six months' training in their future duties. After a year's satisfactory service they will be eligible for confirmation in their appointments and for promotion to the rank of Flying Officer. Promotion above the rank of Flying Officer will be by selection, subject after April 1, 1931, to passing a qualifying examination. The emoluments of officers in the Stores Branch, including the value of quarters, rations, and services in kind, or cash allowances in lieu, range from approximately £364 a year for a Pilot Officer, and £400 a year for a Flying Officer on promotion, to £1,135 a year for a Group Captain (the highest rank for which provision is made). The expenses in Royal Air Force messes are strictly regulated, so that officers even of the most junior rank can live upon their pay.

Application should be made to the Secretary, Air Ministry (S.7), Kingsway, London, W.C.2, for the regulations and for application forms. Completed application forms should reach the Air Ministry by August 15 next or, at the latest, by September 1.



THE ARMSTRONG-WHITWORTH "WHITLEY": A new parasol "cant-e-leaver" monoplane constructed by the Whitley staff of Sir W. G. Armstrong-Whitworth Aircraft, Ltd., for a recent Coventry Hospital Carnival.



AIR POST STAMPS

By DOUGLAS ARMSTRONG
(Editor of "The Stamp Collector")

THE re-opening of the 1928 flying season was marked in several countries by the issue of new stamps for aerial postage. Early in May the Berlin-Koenigsberg-Moscow air line was again put in operation, touching en route at Riga and in consequence, the Latvian post office has put on sale air mail stamps in three denominations, comprising 10 santimu green, 15s. red, and 20s. blue. They are printed in the same triangular design as those originally issued in 1921, showing an aeroplane in flight over the city of Riga, but with values expressed in the new currency. These stamps will also be employed in the Leningrad-Reval-Helsingfors service.

For the first air post flight across the Adriatic, carried out between Valona and Brindisi, on April 21 last, five thousand sets of the obsolete Albanian air post stamps of 1925 were re-issued with the addition of a commemorative overprint reading "Rep. Shqiptare I Iar Vlone-Brindisi-21.IV. 1928" in which form they were available to the public for eight days only, viz., April 21 to 30. A new definitive series of aero stamps is foreshadowed here.

In Bulgaria, air post flights were resumed between Sofia-Rustchuck-Varna under the auspices of the "Buenavad" Society, on April 15, when two additional values of the contemporary Bulgarian postage stamps made their debut with an aeroplane imprint similar to that found upon the air stamps introduced for a brief period in November last, bearing the name of the operating concern in tiny letters upon its side. The stamps thus distinguished are the 2 leva drab (portrait of King Boris overprinted in red) and 10 leva brown and orange (National Lion) overprinted in green. Two sheets of the 1 on 6 leva air post stamp of 1927 have recently come to light with the overprint inverted and for this error high prices are being asked. Unfortunately, the holders have defaced the specimens by the application of a rubber hand-stamp, presumably intended as a form of guarantee, but which completely destroys their interest for aero-philatelists.

THE present quasi-official air post stamps of Greece are about to be replaced by a government issue, at first of a provisional, but later of a permanent, character. The provisional series will be available almost immediately and will consist of remainders of the "Fabvier" commemoration stamps, no longer valid for postage surcharge, in red with the figure of an aeroplane and altered values as follows: 50 lepta on 3 drachmai, 1 dr. on 6 dr., 2 dr. on 6 dr., 3 dr. on 3 dr. and 5 dr. on 6 dr.

A 50-CENTESIMI air mail stamp, printed in rose-carmine in the permanent type, took the place of the surcharged variety in the current Italian series in March. According to a Helsingfors correspondent it is considered improbable that the set of Finnish air stamps that has been impending for some time past will ever materialise. On the other hand, Belgium is reported as being on the point of releasing some special stamps for air post purposes in designs depicting aeroplanes flying over Brussels and other Belgian cities.

AN unheralded and unlooked for addition to the world's aero stamps made its appearance in Malta on April 1, in the form of the current 6d. postage stamp of the colony, expressly overprinted "AIR MAIL" for the purpose of prepaying the supplementary fee upon letters forwarded to Iraq, Persia, India, etc., via Egypt and the Imperial air mail service. Air mails are made up fortnightly, and in the case of letters for Baghdad, a clear saving of sixteen days is effected.

CERTAIN of the stamps issued in connection with the recently inaugurated South American air post systems are already proving a profitable investment for those collectors who were far sighted enough to snap them up when they first came into use. Seven out of the sixteen values of the overprinted Brazilian series are now reported as obsolete, and it seems certain that the remainder will shortly be superseded by stamps of a more permanent type. Semi-official air post stamps bearing the device of the national flag, printed in Germany, have also been taken into use by the Condor and Varig Syndicates, which control the coast-wise air mail routes in Brazil itself.

AIR MINISTRY NOTICE TO AIRMEN

Use of Royal Air Force Aerodromes by Civil Aircraft

1. ATTENTION is called to the conditions under which civil aircraft are permitted to use Royal Air Force aerodromes; namely, in addition to landing in cases of emergency:

- (i) For refuelling in the course of journeys where no civil facilities exist;
 - (ii) For landing of passengers proceeding to a destination near the air station concerned.
2. If it is desired to use a Royal Air Force aerodrome for more than a passing call, notice must be given to the Commanding Officer and permission obtained beforehand.
3. These conditions apply equally to aerodromes used by the Auxiliary Air Force unless licensed as civil aerodromes.
4. The use of the Royal Air Force aerodrome at Gosport by civil aircraft is restricted to cases of real emergency. The civil aerodrome at Southampton (Hamble) is available nearby.
5. The Royal Air Force seaplane station at Felixstowe, as already notified is not available for use by civil aircraft without permission. (No. 57 of 1928.)

PUBLICATIONS RECEIVED

Aeronautical Research Committee Reports and Memoranda: No. 1126 (M.52).—The Distribution of Stress and Strain in the Wöhler Rotating Cantilever Fatigue Test. By W. Mason and N. P. Inglis. Oct., 1927. Price 1s. 6d. net. No. 1129 (E. 28).—Heat Transfer in Internal Combustion Engines. By H. Moss. Sept., 1927. Price 1s. 3d. net. H.M. Stationery Office, Kingsway, London, W.C.2.

Aeronautical Research Committee Reports and Memoranda: No. 1130 (Ae. 300).—A High Speed Wind Channel for Tests on Aerofoils. By T. E. Stanton. January, 1928. Price 9d. net. No. 1136 (Ae. 306). The Theory of Pressure Capsules. By A. A. Griffith. August, 1927. Price 9d. net. No. 1131 (Ae. 301).—Lift and Torque of an Autogyro on the Ground. By H. Glauert. July, 1927. Price 4d. net. No. 1132 (Ae. 302).—On the Vertical Ascent of a Helicopter. By H. Glauert. November, 1927. Price 9d. net. H.M. Stationery Office, Kingsway, London, W.C.2.

Hampstead Garden Suburb Programme of Coming-of-Age Celebrations, June 23-30, 1928. Hon. Gen. Secretary, J. A. Davidson, 153, Hampstead Way, N.W.11. Price 6d.

L'Année Aéronautique, 1927-1928. By L. Hirschauer and Ch. Dollfus. C. Dunod, 92, Rue Buonaparte, Paris.

AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.)

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